4WD parts and service feature on page 40

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Long-time NZ4WD contributor Richard Soult gets to do some epic overlanding trips here and abroad. This image is from a drive through the back roads of Corsica. Richard says the trip was too short – two weeks on the island is simply not enough. The Corsica story starts on p48.

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FROM THE EDITOR

WELL DONE, NEW ZEALAND

Earthquakes, volcanic eruptions, pandemics, storms, floods, cyclones. We've been doing it hard these past few years.

Big pressures, but the response to each event really sums up the strength of character we all admire in Kiwis.

The latest storms across January and February have been pretty hard on the nation, but once more we have risen to help those worst affected.

Full credit goes to the 4WD fraternity for stepping up to help, rescuing people, pets and stock from the floods. Likewise the Army crews who brought out the mighty Unimog to go where smaller 4WDs could not.

I have to say, the 'Mogs are impressive. Massive truck wheels and tyres, a simple diesel engine, bulletproof transmission, portal hubs – what's not to like? A design from the late 1940s, evolved over the decades and still the best way to respond to natural disasters like Cyclone Gabrielle. We might have to line up a drive in one of these things.

So the North Island's off-road trails may well be a tad battered at the moment. That is a fresh challenge to many. Fresh obstacles, roads re-cut by flood water, a chance to 'go bush' and explore post-cyclone wild places.

Worth taking along a chainsaw and spade though.

I suspect off-road tracks and routes will mostly be left as-is by land managers and the government, who have plenty of other work to do. That means track repair is up to the user.

For example, the 42 Traverse down near Tongariro is managed by DOC, but 4WD users get together regularly for track-clearing weekends, keeping vegetation cut back and sorting out erosion damage. Anyone heading that way this month might like to let us know how the Traverse fared in the storms. That goes for other classic tracks too.

Mark Baker
Editor, *NZ4WD*

Front cover images: Nissan's mighty Navara Pro4-X; Brent Ward shreds an obstacle during the national trials series.

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Amarok on its way

New Zealand pricing confirmed

The past decade's trend toward ever-more-flash utes is continuing to accelerate.

Volkswagen NZ has confirmed the model lineup and pricing of the all-new Amarok ute, with four models ranging from entry-level at $65,000 right through to a top end model at $90,000. The new model is thus almost level-pegging with the outgoing Amarok.

There are four models in the coming range: the entry-level $65,000 Life, the $75,000 Style, the $88,000 PanAmericana, and the $90,000 Aventura. The quoted prices do not include any Clean Car fees, which extend up to $3,910 in flagship models.

The Life and Style will both feature a 2.0-litre turbodiesel engine. The Life's single-turbo unit is rated at 125kW/405Nm while the Style's twin-turbo produces 154kW/500Nm.

The PanAmericana and Aventura, meanwhile, make use of Volkswagen's 184kW/600Nm 3.0-litre V6 diesel.

All models use VW's 4Motion all-wheel drive system. The Life will have a six-speed auto, while the other three models have ten-speed auto transmissions.

Braked towing capacity is 3,500kg; with tray payload rated in excess of 900kg.

The Life has 17-inch wheels, a rear mechanical diff lock, LED headlights, a 12-inch touchscreen, and a comprehensive suite of safety tech systems.

The Style runs 18-inch wheels, LED Matrix headlights, ambient lighting, keyless entry and start, navigation and a standard towbar.

The PanAmericana and Aventura have Harman Kardon sound systems, leather upholstery, heated seats, and parking assist. The main differences between the two are cosmetic, with the PanAmericana geared towards off-road adventurers and the Aventura pitched as a ute for those wanting to make a visual statement.

The PanAmerica has all-terrain tyres, 18-inch wheels, side steps, and extensive black highlights. The Aventura has 20-inch wheels with lower-profile rubber, and Volkswagen's 'X-Design' front bumper.

Mazda's inline six in production

CX-60 launches new power plant

Mazda's new in-line six cylinder engine is now powering the company's CX-60 SUV, and the company has announced impressive fuel figures for the engine.

Official fuel consumption figures for the 48V mild-hybrid petrol variant of the CX-60 set a new benchmark within the Mazda range.

The new CX-60 3.3-litre turbo-petrol six is cleaner than the current CX-5 2.5-litre naturally aspirated four - despite boasting two more cylinders, 50 per cent more power and twice as much torque.

Capable of returning 7.4 litres per 100km on the combined cycle, the Mazda CX-60 e-Skyactiv G 3.3-litre turbo petrol offers an identical fuel efficiency rating to that of the frugal four-cylinder 2.5-litre petrol Mazda CX-5.

Its CO2 rating is also one gram lower at 171g/km, and a full 10 per cent lower than the highly praised 2.5 turbo-equipped version of the Mazda CX-5.

The larger displacement of the 3.3-litre Mazda CX-60 e-Skyactiv G – which is compatible with 91 octane fuel – actually improves efficiency, as the higher volume of air enables more complete combustion and a wider lean-burn range, leading to lower fuel consumption and reduced NOx emissions.

The M Hybrid Boost 48V mild hybrid system also supports the engine during the light-load range (idle to low speed) – where internal combustion engines are typically not very efficient – via an electric motor mounted between the engine and gearbox.

The engine produces 209kW and 450Nm of torque, with a flat torque curve from 2,000 to 3,500 rpm.

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BUT OVER IN THE USA...

Defender+Corvette =650bhp

Electric? Perhaps not for everyone.

Fossil-fuel diehards might well look to the USA, where South Carolina-based tuning company Himalaya is widely respected as one of the finest Land Rover Defender modifiers. Just bring a healthy bank balance.

The company is showing its ultimate Defender, all 484kW/650bhp of it.

The Land Rover Defender 130 Summit Series in all-black proves that "off-roading can still be performed in style and luxury". It has a black leather-clad interior that's accented with red stitching all around. Modern amenities such as heated seats, 3D printed bezels to surround the digital gauges, various BlackVue 4K HD cameras with 360° viewing and remote viewing and recording capabilities, a 7" touchscreen with Apple CarPlay functionality, and a 1000-watt JL Audio DSP amplifier and eight JL Audio speakers positioned inside the cabin all come together to make this a luxurious SUV both on and off-road.

The truck has also been given a healthy boost in power. Instead of tuning the existing unit, Himalaya has inserted a supercharged Corvette LT4 engine and has paired this with an eight-speed auto, sending power to all four wheels. Stopping power comes courtesy of Brembo discs, while a custom four-link adjustable coil-over suspension should help tackle all kinds of terrain.

Himalaya's newest Summit Series 130 "showcases our strength in restoration and the company's remarkable feats of engineering down to the smallest detail". Himalaya says its Summit Series 130 "introduces one of the most sought-after classic truck designs on the planet while still offering powerful performance and complete comfort."

Prices for commissions range between $250,000 USD and $300,000 USD.

Rescue by 'Mog'

Storm, tornado, cyclone: 4WDs save the day

Where would we be if not for the 4WD vehicles that played such a pivotal role as floods and storms racked the country?

Nobody can deny the importance of wading/fording depth, a strong engine and robust four wheel drive when the weather turns nasty.

Electric vehicle advocates including those in Parliament sneer at diesel and petrol 4WDs, especially utes, as 'inappropriate'. It is a safe bet none of those helped by 4WDs in the recent Kiwi 'summer' would agree.

Among the hordes of 'civvie' 4WDs helping out, there were some specialist trucks provided by New Zealand's defence forces.

They included the mighty Mercedes Unimog.

Almost all Kiwi 4WDers know the Unimog.

The Universal-Motor-Gerät, more commonly known as the Unimog, is a high clearance 4WD vehicle, with massive wheels to cope with sand, mud, rocks and floods. It is a four tonne, 4WD truck used by our military for a wide range of roles including troop movement, fire-fighting, ambulances, stores carriage and as a gun tow vehicle.

Like the Jeep, the word Unimog is abused to describe all sorts of large all-terrain trucks.

They have been around a while. The first Unimog was developed under the direction of Albert Friedrich in 1948, for use in agriculture.

However, it was eventually bought by Mercedes-Benz and developed into the trucks, buses and lorries of today.

Unimogs deployed to help in areas hit by Cyclone Gabrielle are the U1700L (1976-88) model, which is seen by many as the classic Unimog.

They have four pedals – an accelerator, clutch and two brakes.

Sure! There are currently 220 Unimogs within the NZDF fleet. The NZDF has two models: the U1700 General Service and the U1300 Ambulance.

While most commonly associated with military uses, Unimogs are also used for logging, firefighting and as snowploughs, among other things.

They are often unaffected in flooded areas where their ride height – aided by the 'Mog's hub portal axles – mean they can operate in floodwaters of up to 1.2 metres

There are a number in private use too. In November 2017 the NZ Army sold 40 'Mogs. Two Unimogs up for disposal were donated by Ron Mark, the Minister of Defence at the time, to Northland in 2019.

Trucks for sale on TradeMe have descriptions ranging from "still very drivable" to "will not drive due to transmission issue".

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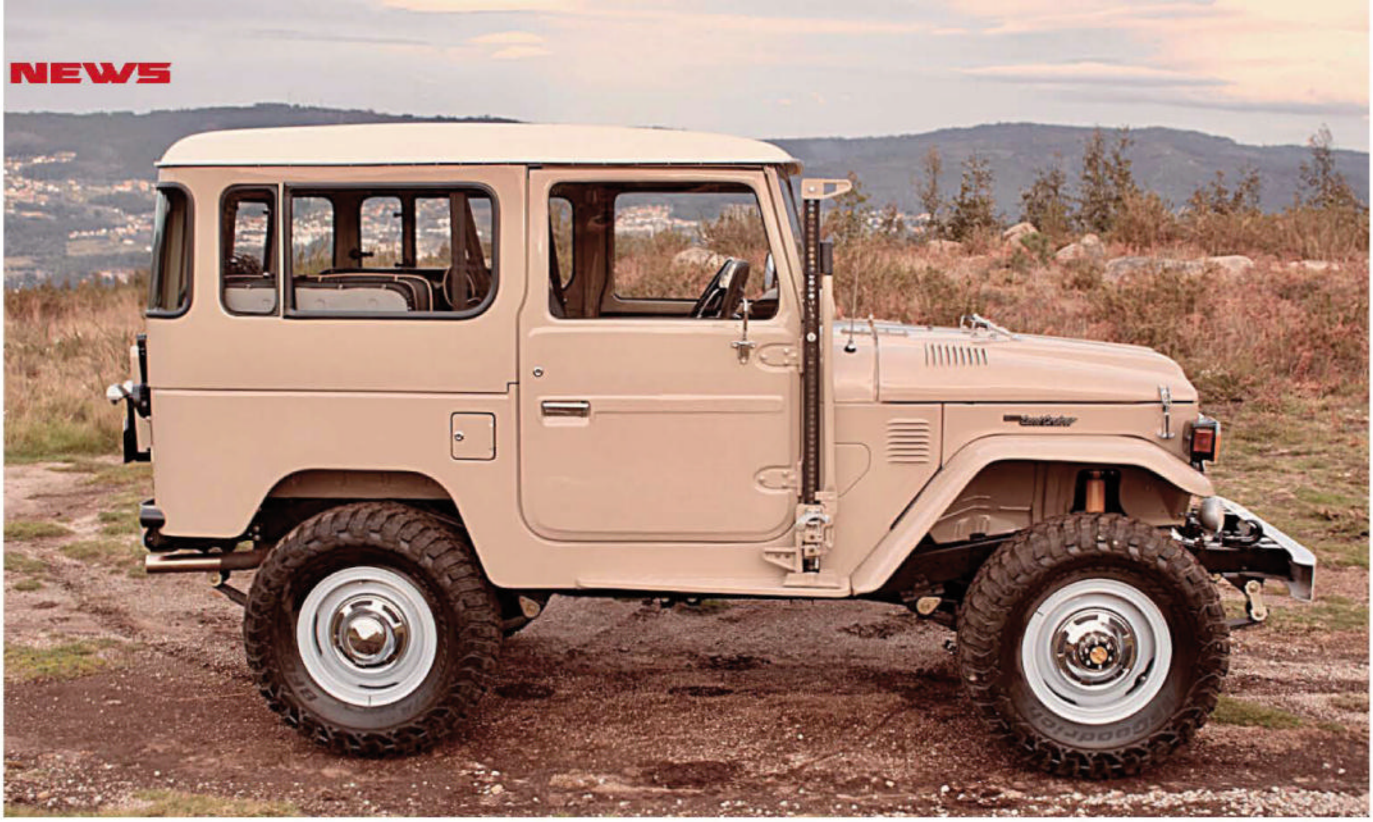


Stealth restoration

1982 FJ40 gets re-muscled

Who loves Toyota's 40-series cruiser? Lots of people. A restored 40? Mint. But wait, there's more: a Chevy heart of steel lurks under the bonnet.

That old saying 'less is more' does not apply.

Often, updating the power plant of an older 4WD also brings tweaks, tell-tale signs that all is not as it was. Until it fires up, Legacy Overland's Toyota Land Cruiser appears to be simply a nicely restored classic 'Cruiser. Decent tyres, stock-looking rims (with hubcaps), aftermarket shock absorbers.

But this classic Japanese 4x4 has had a heart transplant

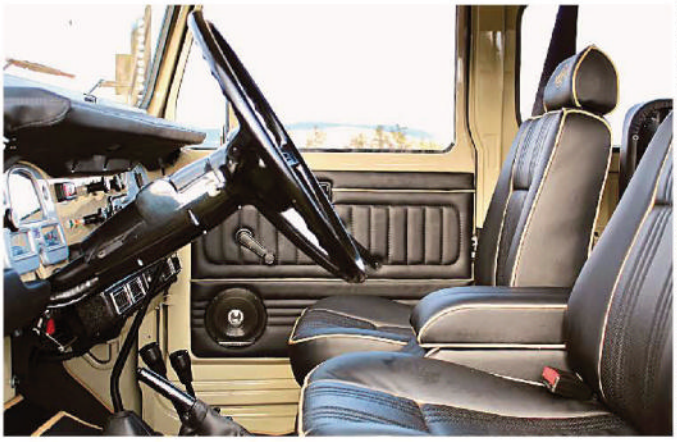
Lurking beneath this '82 FJ40's period-correct bodywork is a brand-new General Motors 5.7L V8 'crate' engine and 700R4 four-speed automatic gearbox.

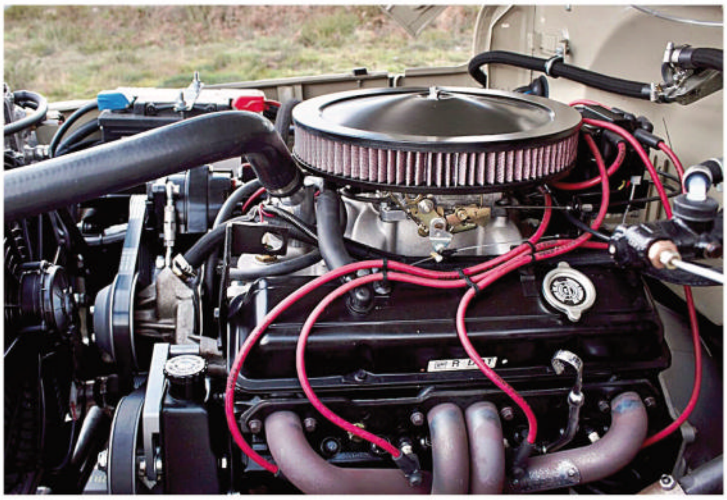
Other mechanical upgrades include disc brakes all-round, power steering, Old Man Emu leaf springs and suspension components, Terrain Tamer gas shocks, custom-built fuel tank and those beefier BF Goodrich Mud Terrain tyres wrapped around 16-inch OEM rims.

The truck still looks almost exactly like it did when it was new, almost 40 years ago. Land Cruiser experts will of course spot the differences from a mile away, but would assume it was a simple resto job.

Inside it's a bit more obvious that this is no standard FJ40, but not by much. The front seats are original but re-trimmed in vegan-friendly leather, there's a modern stereo camouflaged as an old one (it's the speakers that give the game away), and a slim auxiliary air-conditioning unit under the dash. It's even got the original steering wheel, which is a nice touch.

The exterior has been repainted in Toyota's Desert Storm Sand colour and tastefully enhanced with LED headlamps, rear utility lamp, and jerry can painted in the colour of the car.





A few highlights from the project's spec list:

- Underbody and doorsteps painted with Raptor paint for extra protection.
- Under carriage and floors painted in Raptor paint (in car colour) for longevity.
- Hard top with rear ambulance doors.
- GM 350ci small block V8 gasoline new crate engine.
- Weber 600 CFM carburettor with electric choke.
- Edelbrock 700R4 4-speed brand new automatic transmission.
- Hydraulic Saginaw power steering.
- Upgraded disc brakes front and rear.
- BF Goodrich Mud/Terrain KM3 285/75R16.
- 16" OEM steel wheels.
- Chrome OEM hub caps.
- Old Man Emu light load +2" leaf springs.
- Old Man Emu suspension components (shackles, bushings etc).
- Terrain Tamer gas shocks.
- Galvanized hardware throughout.
- Front Aisin manual lockers.
- Late model square style grille bezel.
- Front bumper D-rings.
- LED headlamps.
- OEM-style yellow lamp fog lamps.
- Jerry can (10L) painted in car colour.
- New license plate holder with lamps.
- Rear LED utility light.
- Spare wheel on swing-out carrier.
- Interior handcrafted in black vegan leather with microperforated sections and edge trim.
- Front original bucket seats.
- Rear foldable benches with lap belts.
- Custom fabricated cubby box.
- Vinyl floor mats with edge trim.
- Under-dash slim line air conditioning unit.
- RetroSound Long Beach Bluetooth enabled media receiver with Sirius XM satellite radio.
- Four Pioneer speakers, two front and two rear in custom speaker boxes.
- USB charging port.

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It's good to be King

Many Kiwi 4WD enthusiasts are familiar with Ultra4 off-road events. We even have our own series. They are faster (at times) and much more extreme than other 4WD trials events.

Extreme 4WD event fans will also be familiar with the American King of the Hammers event that pretty much spawned the category.

The 'KoH' is an annual event that combines desert racing and rock crawling. This race is held in February on Means Dry Lake at Johnson Valley, California, USA. The race is broadcast live on Ultra 4 Racing's website.

The King of The Hammers race week has expanded from one race. It is now a series of five races that run throughout the week. The races include a Can AM UTV event on Sunday, the ULTRA4 vs. Rock Bouncer shootout on Monday, the Every Man Challenge Race on Wednesday, and the Toyo Desert Invitational (Unlimited Trophy Trucks) on Thursday.

During the nine-day race week, the Means Dry Lake bed turns into a temporary settlement named Hammertown. In 2022 there were roughly 400 teams and 80,000 spectators in attendance for the event.

The King of the Hammers was founded by Jeff Knoll and Dave Cole in 2007, who drafted the concept on a bar napkin. A trial run was conducted with 12 teams nicknamed the OG13. The OG13 are invited back to race every year. All past winners, dubbed "Kings", are also invited annually.

The first official race was in 2008, though no spectators were present. Approximately 50 drivers took part. Race teams started in 30-second intervals from Means Dry Lake bed and navigated through the desert on a 50–60 mile set race course to their first rock course.

The community surrounding the Johnson Valley off-road area gains around $71 million a year from off-roaders going to and from the area.

Below: the King of Hammers is arguably the toughest offroad event in the world, combining the speed of offroad racing with the rock-garden madness of Ultra4 events.

Stand well clear

Fox builds a KoH Bronco

It's that time of year. A special-edition 'King of the Hammers' Ford Bronco has been shown off as a new take on the latest version of the Ranger-based Bronco to provide weekend warriors with the ability to go into extreme environments – and be back in time for dinner.

Fox has teamed up with Dave Cole, co-founder of the annual King of the Hammers race in Johnson Valley, California, and Ultra4 racer Jason Scherer to design an extreme version of the Ford Bronco inspired by the gruelling off-road event.

The vehicle has been customized by Fox Factory and features a suspension system developed and tuned exclusively by Scherer, which includes a four-inch BDS PE coil-over system and a set of FOX Performance Elite 2.5 Series shocks. The latter are a specification step beyond the Fox shocks offered on the factory Bronco Raptor.

Using a set of 19-inch Vision Ojo wheels, the vehicle has 37-inch BF Goodrich Mud-Terrain KM3 tyres to easily handle the rigors of even the most demanding environments.

It also features a four-inch body lift plus a set of adjustable BDF lower control arms and track bar that allow it to be set up to the driver's preferences.

Carbon fibre fender flares replace the stock units and the package comes with an ARB air compressor for use with the tires and plenty of custom King of the Hammers graphics, badges and upholstery.

The Fox truck is powered by the Bronco's 2.7-litre turbocharged V6.

The King of the Hammers Edition Bronco even has a three-year/100,000km warranty.

The Fox Bronco strongly evokes the King of Hammers ethos.

Big pickups to hit New Zealand

Ford and Toyota to join Ram and Chev

It wasn't that hard to predict. Ford will bring the world's best-selling pickup to New Zealand. More of a surprise: it seems Toyota will follow suit.

Demand for 'full size' trucks in New Zealand has driven GMSV and Ram a healthy head start on their rivals. Ram in particular recently celebrated the production of its 20,000th right-hand-drive pickup.

Respected motoring journalist Alastair Sloane broke the story on his website, autonews.nz:

"Truck market leaders Ford and Toyota are in the midst of signing off on right-hand-drive versions of their bigger North American market pickups for sale in Australia and New Zealand.

Both companies are working towards the end of research and development – Ford with right-hook F-150 models engineered by Thailand's RMA Group, and Toyota with the Tundra converted by Melbourne's Walkinshaw Automotive Group (WAG). Thailand's RMA Group is a long-time Ford-backed accessories company with supply links to the Australian mining industry. WAG is the Melbourne engineering and assembly company that converts all-American Ram trucks. It once housed Holden Special Vehicles.

Ford is expected to okay the F-150 for production within the next six months; Toyota is likely to do the same with the Tundra later this year or early next.

Both will be V6 hybrid models.

As usual, Ford and Toyota are officially saying very little about the R&D programme, but it is understood the F-150 and Tundra are being trialled using petrol-electric engines with similar output.

The F-150 runs a 320kW/760Nm 3.5-litre V6 Powerboost hybrid, and the Tundra a twin-turbocharged 3.5-litre V6 hybrid delivering 326kW/790Nm.

The move by Ford and Toyota comes largely on the ballooning growth in this part of the world of full-size US pickups from Ram and General Motors' Chevrolet Silverado division.

The growth of right-hand-drive Ram trucks has been described as 'phenomenal'.

Ram alone has delivered 20,000 pick-ups since 2014, including a record 6100 or so in 2022. The increasing popularity of such vehicles is also apparent in Silverado's numbers: of its 5000 sales in a few years Down Under, more than 2300 were recorded last year alone.

WAG converted both Ram and Silverado variants; Ram for Ram Trucks Australia (owned by the Ateco Group) and Silverado for General Motors Specialty Vehicles (GMSV). It used separate staff on separate assembly lines for the US arch rivals until about six months ago, when Silverado moved to a new site and Ram took over its territory to cope with new demand.

The 20,000th right-hook Ram and its supercharged 6.2-litre V8 engine rolled off the production line at the beginning of February. Latest figures show around 18,000 have been sold in Australia and 1000 or so in New Zealand. The remaining 1000 are now being delivered to both markets.

Most Ram variants run a 5.7-litre V8 petrol engine.

Chevrolet Silverado has sold 5000 variants Down Under, 2300 in 2022 alone.

The sales success of right-hook Ram trucks has been described by Ram International boss Bob Graczyk as "phenomenal".

He told Australian media last year: "When we first looked into the business opportunity and asked how big the market could be no one really knew what to expect, maybe 3000, 4000, perhaps 5000 (sales a year). It has completely exceeded our expectations."

Ram Trucks Australia is now the biggest vehicle assembler across the Tasman. It employs 641 assembly workers, engineers and office staff.

A recent survey of new vehicle sales in 22 countries last year showed New Zealand and Australia were the only two where a one-tonne diesel truck was the No.1 seller. Further, three of the top four selling vehicles in New Zealand were diesels.

Similar town-and-around trucks were also the No.1 choice in the United States and Canada, where the Ford F-Series rules, although the Ford range runs mostly on petrol or petrol-electric engines.

The 22 nations made up 75 per cent of the 2022 global sales market. The study showed small/city cars topped sales in 11 countries, SUVs in seven, and utes/pickups in four. Norway was the only country where an electric vehicle was No. 1.

Most of the small/city cars used petrol engines. SUVs mixed petrol/diesel/hybrid/EV powerplants - the Song SUV in China is an example. Ranger and Hilux in this part of the world are 99 per cent diesel.

Ranger chalked up 11,577 sales in New Zealand, ahead of second-placed Hilux's 9787. The positions were reversed in Australia, where the Hilux headed the charts with 64,391 sales against Ranger's 47,479. Hilux has been the best seller overall in Australia in each of the past seven years.

Both vehicles recorded a similar share in each market: Ranger had 7.0 per cent of overall 164,813 sales in NZ, and Hilux 6.0 per cent of 1,081,429 in Australia. Diesel utes alone occupied more than 20 per cent of the NZ market and 18.5 per cent of Australia's.

• Pickup truck numbers in North America in 2022: Ford F-Series, 739,000; Silverado 513,000; Ram 468,000; Toyota Tundra 95,000.

Sequoia for NZ

It's not through Toyota, but Kiwi buyers will soon be able to buy Toyota's Sequoia SUV. South Island engineering company Glacier International is to bring the 2023 hybrid Toyota Sequoia SUV from North America to New Zealand.

Northern test for new Touareg

Major update for million seller

Volkswagen will launch a comprehensive technical and visual update of its premium Touareg SUV.

The rear and front of the luxury SUV have been redesigned, the chassis has been further developed and impresses with its combination of comfort and performance.

The camouflaged new Touareg has been completing its final test miles in Swedish Lapland.

Although the body design modifications are still hidden under an oversized QR code wrap, images do provide a preview of the first technical details. At the front it is possible to see the newly developed IQ.LIGHT HD matrix headlights and the elements of a new LED light strip integrated between them.

The lights provide significantly more brightness on the road without dazzling oncoming traffic. 19,200 micro-LEDs are distributed over the new headlights on each side of the vehicle. The matrix system projects an interactive carpet of light into the lane of the luxury SUV. This so-called "lane light" makes driving at night more comfortable and makes it easier to drive through narrow motorway construction sites in the dark, as the carpet of light optimally illuminates the lane.

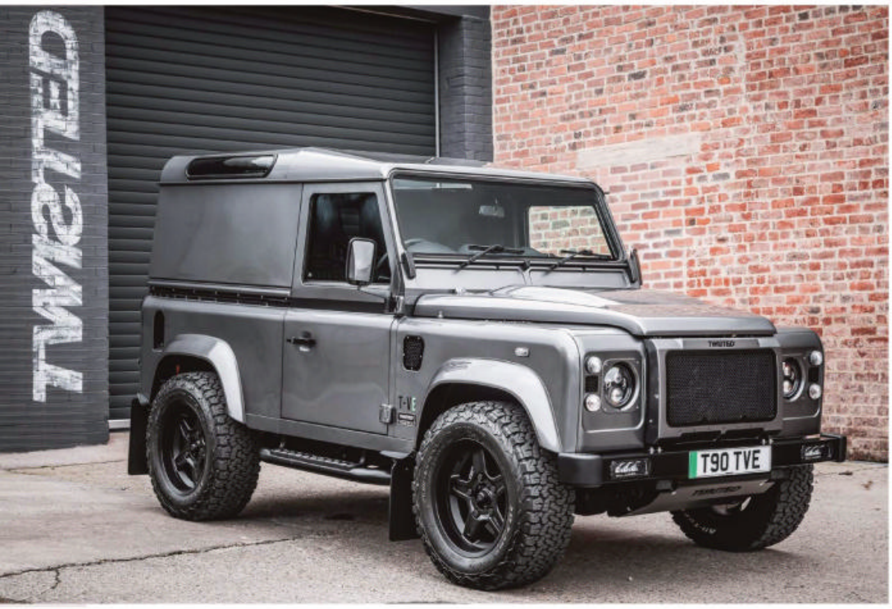
Volkswagen has further developed the chassis of the Touareg. A roof load sensor is directly networked with the chassis electronics. If a roof box is installed, the sensor recognizes this and passes this information on to assistance systems such as the ESC. This increases the driving stability of the Touareg.

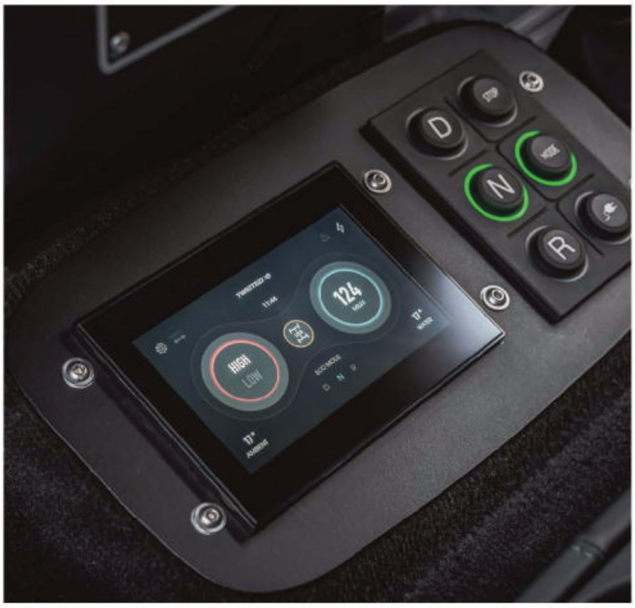
The standard steel spring running gear and the optional two-chamber air suspension running gear have also been upgraded.

The Touareg is equipped with the "Innovision Cockpit" operated through the central touchscreen display, the multifunction steering wheel and analogue elements such as the volume control in the center console. The "Innovision Cockpit" of the new Touareg offers, among other things, lane-precise navigation and high-resolution HD map data. Voice control has also been further developed. The app integration via smartphone and "App Connect" (Apple CarPlay, Android Auto) can now also be done wirelessly.

Volkswagen says the update makes the Touareg a well-balanced SUV all-rounder that masters long distances as well as everyday life.

Touareg undergoes arctic testing, still in its digi-camo wrap livery.





Another British EV Defender

Green, but grey, and quite twisted

The Brits are well and truly on the electric vehicle bandwagon these days, even though home-charging an EV is now more expensive than running a fossil-fuelled vehicle.

The European world can thank the Russians for that.

But this might be interesting.

It's the greenest Defender ever and it's actually Corris grey. Built by conversion company Twisted, the all-electric T90 is rated as 'the ultimate go-anywhere vehicle'.

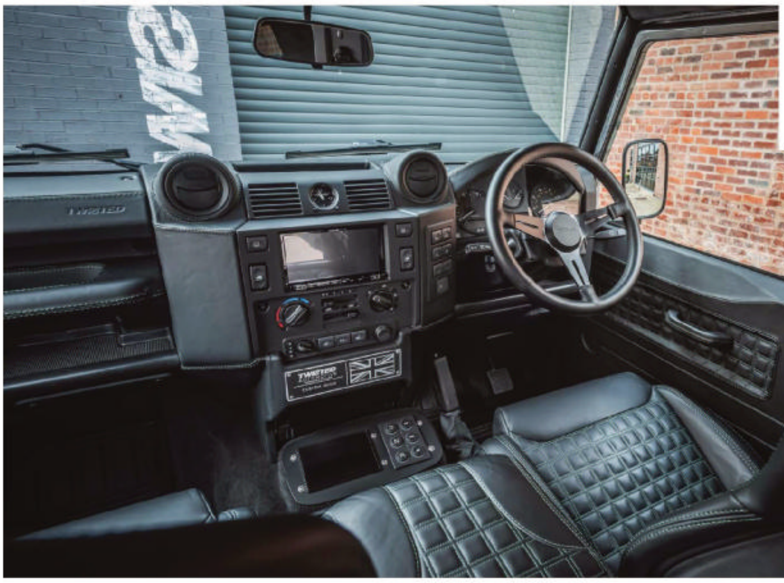
The switch works for any post-2012 Defender, and there are two tune levels along with a stated range of around 390km.

The company says owners can "drive through the centre of London or out in the Yorkshire dales green-laning and know you are leaving a carbon footprint that a Toyota Prius could only dream of".

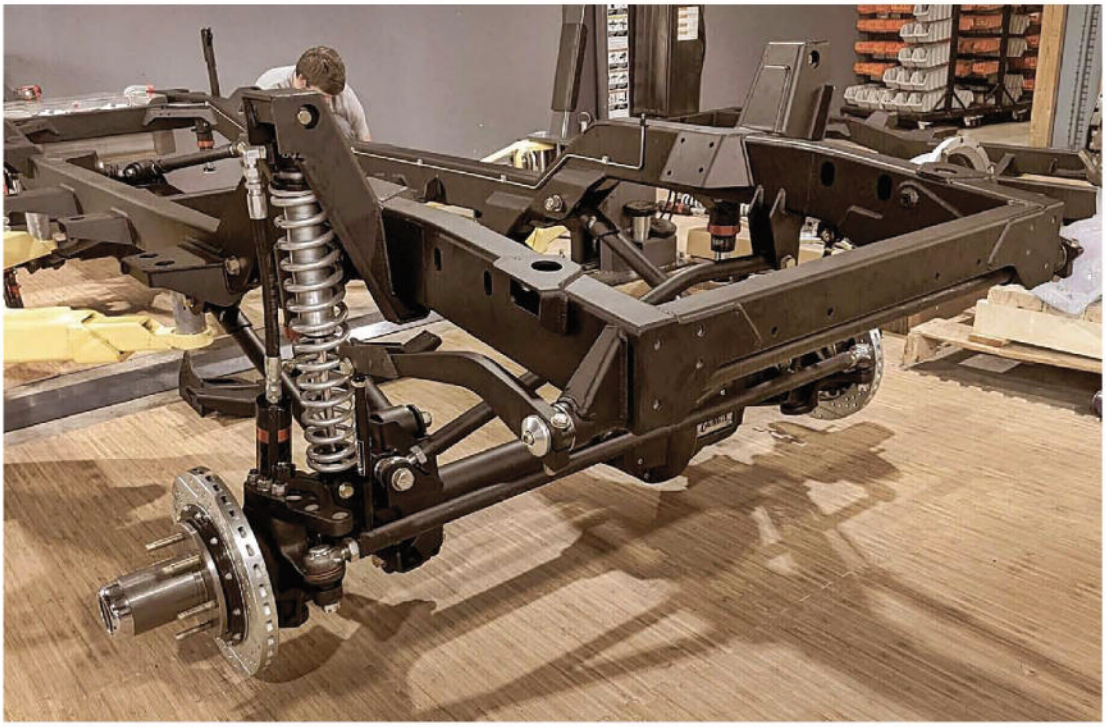
The Defender 90 TVE Conversion costs £75,000 ($144,400 NZD) if the buyer supplies their own Defender.

Twisted is not shy: their mantra is "the best, made better".

For those not yet ready to join the ranks of EV fanatics, the company does also offer similarly tweaked Defenders with big Chev engines.



Twisted's green (and fast) electric-driven classic Defender is at the luxury end of the 4WD conversion market.



Sheer Hellcat madness

but a bit cool too...

Jeeps – the original 4X4. They have a formidable off-roading heritage, but are not often lavished with the same six-figure, super-outlandish resto-mod treatment as other vintage off-roaders like the Land Rover Defender.

Texas-based company Vigilante wants to change that — with the most luxed-out, uber-powerful vintage Grand Wagoneer builds you could imagine.

This is classic 'restomod' upgrading. Vigilante maintains the classic appearance of the Grand Wagoneer, but carries out a comprehensive frame-off restoration with every part either new (old) stock, manufactured from scratch or completely restored. From there, though, things get crazy.

Vigilante opts for modern performance with new Hemi V8 engines. The lowest output is the 485-horsepower SRT-8 plant used in the Wrangler 392. The mid-range engine is the 528kW (707bhp) Hellcat V8 from the Ram 1500 TRX. And then there's the 745kW (1,000bhp) Hellephant.

For perspective, the original 5.9-litre V8 in the Grand Wagoneer offered 107kW (144bhp) horsepower.

That power goes through either a six-speed manual or four-speed automatic transmission, with an Advanced Adapters Atlas II reinforced transfer case for four-wheel drive.

Vigilante upgrades the suspension, replacing the old Grand Wagoneer leaf springs with Eibach coils and Fox Racing 2.0 shock absorbers. They also give the Grand Wagoneer a custom chassis made from thicker steel and more stopping power with Baer six-piston calipers.

There are a few Grand Wagoneers in New Zealand, cherished private imports. But none could line up against this one.

Ultimate power does have its price. The two Grand Wagoneers Vigilante has ready for commissioning start at $295,000. Of course, the visceral thrill of terrifying every unsuspecting patron at a swanky yacht club when you squeal out with a Hellephant would no doubt be worth the price.

Jimny on tow

4WD meets van life

Kiwis love motor homes. Kiwis love overlanding. How to combine the two? With a cult 4WD towed behind a nice big motor home.

Retired Kiwis were probably the ones that kicked this off. The 'grey nomads' found towing a runabout handy when touring, enabling them to lock and leave the motor home in a prime location and use the wee car for supply runs or short local trips.

Before long, the low cost cars were largely replaced by more practical, more capable 4WDs. Because - let's be honest - zooming about in a Jimny or old-model RAV4 or Pajero iO is simply more fun than hoping that $2000 Japanese import will start and then keep running.

Now, motor homes towing 4WDs are everywhere, and the pandemic has encouraged a massive boom in the motor home market that boosts the trend.

Mulholland's trailer

A custom off-road carrier

Richard Mulholland kicked off *NZ4WD's* My 4WD series this time last year. Not content with making his Isuzu D-Max and dad's Land Cruiser into outdoor adventure machines, he's also got busy with some more cargo capacity. Richard takes up the story:

Five days before COVID-19 Level 4 lockdown my ute was involved in an incident on the road where the fitting of the rear MCC bull bar prevented it being written off with chassis damage. The crash wrote off the other car involved in the incident, smashing the engine off its mounts.

With lockdown in full swing, my 4WD South Island holiday now cancelled and my ute looking worse for wear, I had plenty of time between shifts at work to come up with a concept for a 4x4 camping trailer.

I wanted an off-road trailer that could take the same weight load as my Ute, was able to be unhitched and be self-sufficient with solar. It had to be robust enough to take anywhere the ute can go.

The idea started when I was offered a second-hand well-side for free in Napier. Knowing well that my insurance would replace and repair the ute damages, this would mean I would have a spare well-side at the end of the repairs. I researched current off-road camping trailers and found the most common problem was the interchangeability of trailer parts to the ute that was towing them.

After lockdown I found myself towing the free second-hand well-side up from Napier and my mind fizzing with more ideas on the drive back. I found a place for the well-side to live on my father's farm in the meantime.

I found a fabricator on the North Shore (close to home) whom I met with, pushing ideas back-and-forth with each other and measuring parts from my ute to assist in the brain storming. We walked away with a 'napkin scribble' of everything and let the engineering begin.

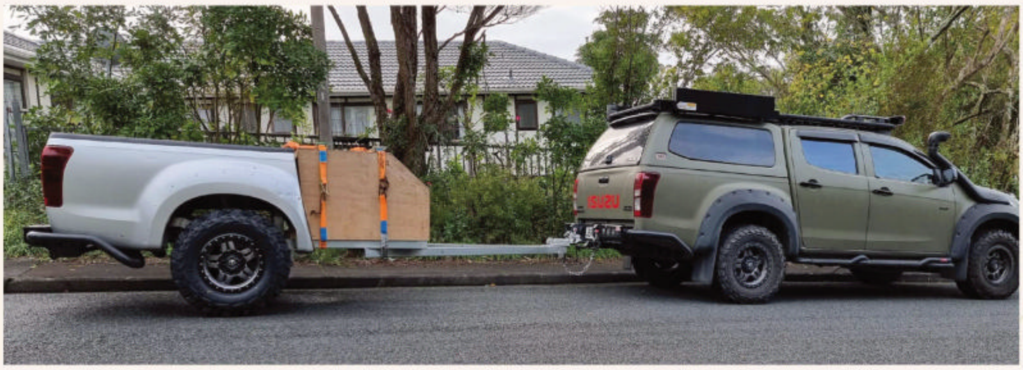
A few days had passed and I was able to see the framework set out and the last small measurements taken before the welding began. It was now my job to bring the well-side from the farm to the Fabricator.

I sourced the same set of mags and tyres and another MCC rear bar (same as my ute) and dropped them off for fitment. Once everything was fitted and towable, I couldn't wait to take it to get a WOF and new plates.

Now living on the farm, I have added a matching flare kit and installed a lockable hard lid (temporary until I get an ARB Canopy). I have made a prefab of the toolbox at the front out of plywood and am now going through the final designs with the fabricator.

Specifications

- Frame made from 75x50x3mm gal-coat steel.
- Multi-fit 3500kg tow coupling Timbren Axle-Less Trailer Suspension System 3.5 tonne (each side).
- MCC 022-03 Jack Rear Bar for Isuzu D-Max.
- 16x8 FUEL ANZA 6/139.7 wheels.
- GLADIATOR Xcomp MT 265/70R16 tyres (same as ute).



Where to go, what to see and do – and when

19 MARCH

Windwhistle 4WD High Country Tour

Hosted by Windwhistle School. Experience a unique guided 4WD tour behind the gates of private high country stations in the Windwhistle and Lake Coleridge area. This is a full eight hour tour with speakers, information packs and all-day catering, not your traditional 4WD trip. The tour crosses into five high country stations – Quartz Hill, High Peak, Snowdon, Dry Acheron and Big Ben.

Self-drive or a chauffeured option is available (limited numbers). A high-clearance 4WD is necessary for the tour. Vehicles need low range sufficient to cope with steeper climbs on some of the track. No low profile tyres. Vehicles need to be weed free and clean. Limited to just 60 vehicles. $500.00 per vehicle (self-drive) limited to 5 people (including driver, adults or children) per vehicle. Chauffeured – $170.00 per person.

Register and pay online. ***www.hororata.org.nz/event/windwhistle-4wd-high-country-tour***

A postponement date has been set for Sunday 26th March 2023. Phone 03-318 6828, ***email windwhistle4wd@gmail.com***

APRIL 4 – 9

Land Rover 75th Birthday Celebration

To be held in Wanaka with three days of safaris followed by two days of vehicle displays at Wheels in Wanaka.

All models of Land Rovers and Range Rovers from 1948 to 2023 are invited to join in for an action-packed Land Rover only 75th Birthday Rally with exclusive off-road safaris exploring seldom accessed high-country stations around Wanaka. The event starts with welcome party and BBQ along with birthday cake.

Online registration will open soon for the three days of safaris and Wheels at Wanaka via their website ***www.wheelsatwanaka.co.nz/*** 75th Merchandise – T-shirts, caps and vehicle stickers – also available and need to be ordered at time of registration. Various accommodation options available including camping but book early as accommodation will be under pressure for the weekend. To stay up to date visit Land Rover 75th Birthday Celebration: Wanaka, New Zealand ***www.facebook.com/groups/630245621144233***

7-10 APRIL

Novawinch 'Battle of the Palace 2023' - Teams Event

The 'NOVAWINCH' Battle of the Palace 2023' Teams Event is happening over Saturday and Sunday of Easter weekend.

Teams of three trucks work together to take on the challenging stages. There will be a few changes to the format of the comp which will keep things interesting and everyone in the race. All day/night BBQ provided for teams. Onsite camping with showers and toilets.

Entry fee is $450 per team.

This is not a public event, property access is restricted to competitor teams only. For more information and entry forms send an email to: ***possumpalace4x4@gmail.com***

15 APRIL

NZFWDA National 4x4 Trial - Round 6

Hosted by Thames Valley 4WD Club at 8800 State Highway 26, Puriri. Round 6 of the 4x4 National Trial 2022/2023 season. Fun day out for the whole family watching extreme 4x4 competition vehicles go head-to-head. For more details visit: ***www.nz4x4trials.co.nz***

14 MAY

Suzuki Extreme 4x4 Challenge

Held at 2278 SH3 Turakina it will feature the top 10 drivers from the 2022/2023 National 4x4 Trials season. Starts 9.00am. The top 10 drivers and vehicles will get automatic entry meaning only the best from the NZFWDA National series drivers and 4x4 Trials competition vehicles in the country are eligible. With awesome spectator viewing, live commentary, steep hills, vertical banks, massive jumps, mud and speed, combined with good food, easy spectator viewing and live commentary it all makes for a fantastic day out with mates and family. Adults $20, family $60. Hot food and refreshments will be available. For more info see the ***Suzuki Extreme 4x4 Challenge Facebook***

20 MAY

Offroad Racing National Championship Round 3

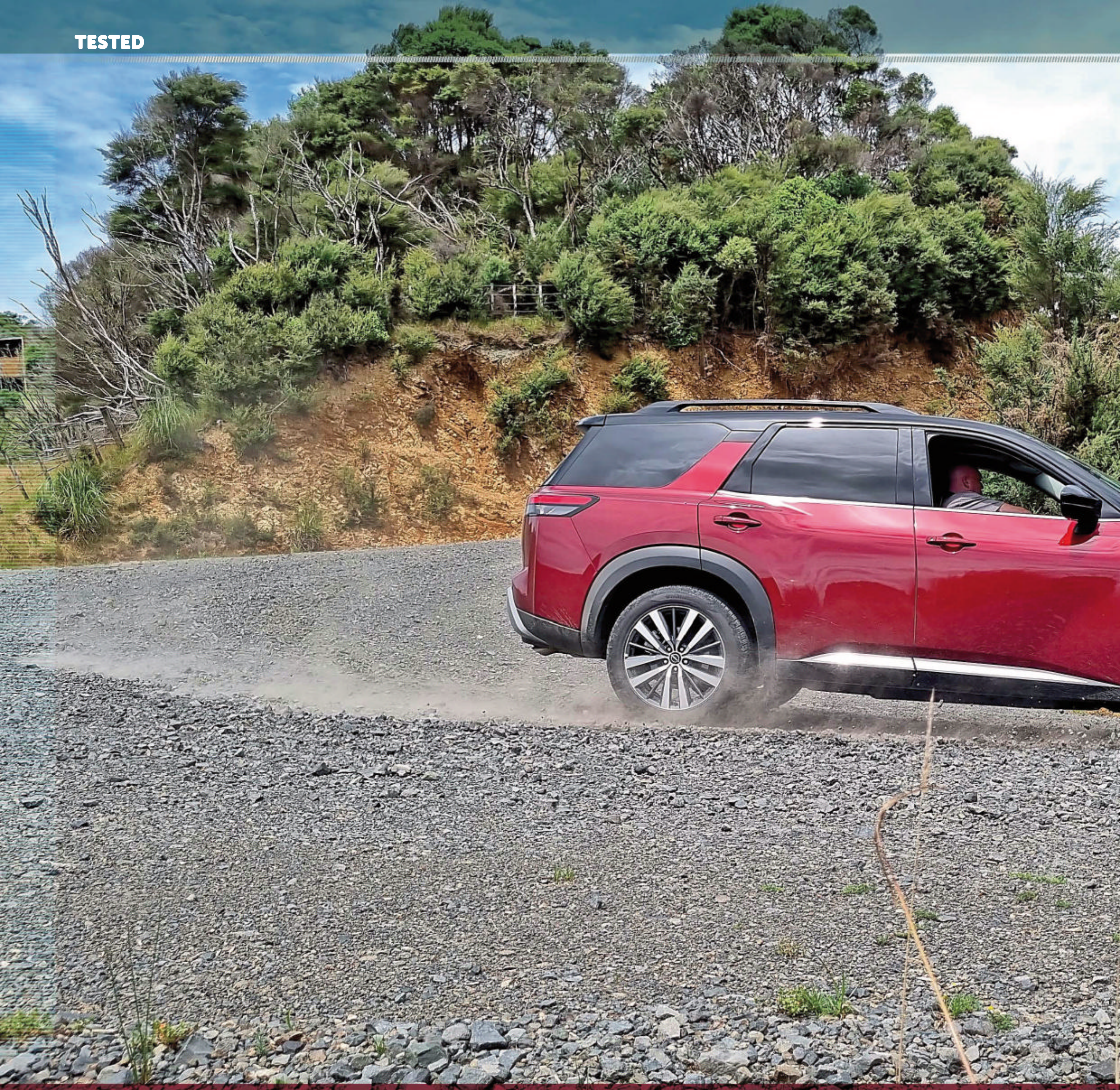
Organised by Nelson Offroad Racing Club, endurance race in Spooner's Forest. This is the first South Island championship round, held on the well-groomed forestry roads in Spooners Forest. The club specialises in high quality, spectacular forest-based enduro races.

27 MAY

'Give it a go' 4WD enduro

Hosted by 4x4 Events and held at Alford Forest, Methven. Club trucks/basic trailer trucks for beginners and those who want to have a go. $50 per truck for NZ4WDA member, $55 per truck for non-NZ4WDA member. For more details and registration visit ***www.4x4events.co.nz.***

If you, your club or anyone you know are planning any events, please get in contact with our Event Manager Ashley Lucas. We can assist in promotion of the event and may be able to offer some assistance in other areas. **Email Ashley@nz4wd.co.nz**



Pathfinder steps up

Refined, powerful, capable and very new

Nissan's fifth generation Pathfinder takes a significant step forward over the outgoing version.

This was an early test – *NZ4WD* got to drive this Pathfinder Ti-L in early February, in between the large storm that lashed Auckland and the worst of Cyclone Gabrielle. That was while the company's online resource described the Pathfinder as 'coming soon'.

Outside, it's sleek and stylish, with an aggressive new family-style grille treatment, striking headlamp design and a 'hanging' c-pillar that follows recent design trends in Europe and Japan.

Inside, our test Ti-L is comfortable and well-planned, packed full of technology serving driver and passengers. This is a proper seven-seater that doesn't skimp on comfort for those in rows two and three. Throughout the interior, we counted a total of 16 cup-holders. There's also a serious sunroof with sunscreen.

Under the bonnet is a familiar sight: Nissan's 3.5-litre VQ-series V6 engine. In this latest application, it makes 340Nm of torque. Most 4WD fans understand the torque figure is more important than outright power, except maybe at the pub on a Friday night.

Coupling the 24-valve V6's output to the road are a nine-speed torque converter auto and Nissan's Intelligent all-wheel-drive. The transmission has seven drive modes for extreme conditions, though the default setting is very capable in most conditions. The all-wheel-drive system features direct coupling and a range of terrain modes including Snow, Sand, Mud/Rut and a dedicated Tow mode. The latter features an onboard trailer stability program.

Nissan says the new Pathfinder offers "go-anywhere capability" and is keen to call this version more "rugged" than its chief competitors, but it's not some body-on-frame 4×4 with low-range like the third-generation model sold between 2005 and 2012

Continued page 22☛

Images by Hannah Willmot

NISSAN
PNT671
nissan.co.nz

Nevertheless, some media are saying the new Pathfinder may have its work cut out for it given there's only that V6 petrol engine available – meaning there are no diesel or popular hybrid options like equivalent models from carmakers such as Hyundai, Kia and Toyota.

Remember that right now, a petrol engine is cheaper to run than a diesel in New Zealand, especially once road user charges are applied. That may not always be the case, but right now petrol is perhaps the fuel of choice for an SUV that is offroad capable but certainly spends much of its time in urban areas.

The petrol engine is smooth and quiet, refined and capable, and nine speeds in the auto mean there's always a ratio to keep it in the torque 'sweet spot' where needed.

Nissan has laid down more than twice the thickness of carpet backing on the floor, 20 per cent more isolation through the door panels, acoustic laminated front glass, along with redesigned dash and bonnet insulation.

The entire driving experience feels more polished and significantly more resolved that the previous Pathfinder – even off-road, across extended stretches of gravel roads encountered.

Those gravel roads are managed without fuss thanks in part to a wider footprint with 20 percent wider tyres.

The truck rolls on 20-inch rims and 255/50 series Hankook tyres, our first experience of the smooth-rolling Dynapro HP2. Definitely an urban tread, the Dynapro nonetheless coped with gravel roads, storm-induced washouts and gravel berms and rough logging roads. No complaints from us.

The vehicle's urban intent is also seen in its ground clearance – 181mm, lower (and more bash-prone) than the 200mm that is very much the industry standard. But for most uses, the lower ride height is a definite plus.

Coupled with a 2.9-metre wheelbase and 1.7-metre track width, the ride height also helps deliver excellent handling and driving dynamics, lowering the centre of gravity and sharpening the truck's responses. On sketchy surfaces, the Pathfinder simply rolls onward, ignoring judder bars, wash-boarding and loose surfaces. The driver knows those seven transmission modes are there if needed, but in most cases they are 'assists', kept only for much worse conditions.

When it's time to lug a load, Pathfinder is ready to work, with a maximum roof-rack load rating of 74kg and braked towing capacity of 2,700kg.

Carrying loads inside? This seven-seater has 205 litres of luggage space even with all three seat rows in use. That number more than doubles with the third row folded – 554 litres. With both rows folded, the figure becomes 782 litres.

The figure is practical too, the rear of the truck presenting a very squared-off load aperture. We reckon the Pathfinder would swallow a boxed dishwasher or oven, no problem.

A towing mode helps manage unruly trailers too.

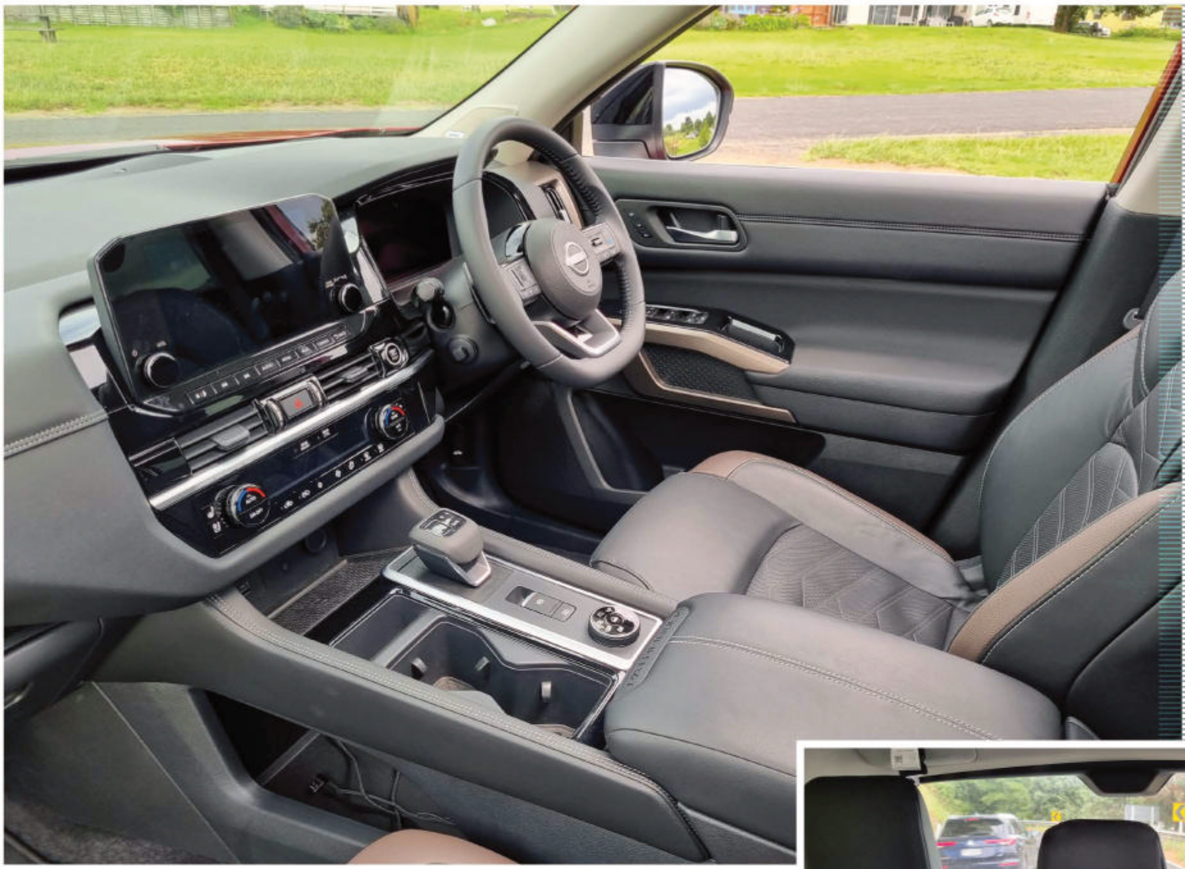
Upgrades are many. A new electronic power steering system gives the Pathfinder a sharper, more responsive turn-in. It's the same story with ride and handling, which are both vastly improved thanks to increased roll stiffness (front and back), along with new shock absorbers and the use of lighter materials.

The doors are lightweight aluminium and there's a 50 per cent increase in high-strength steel for less weight and increased rigidity.

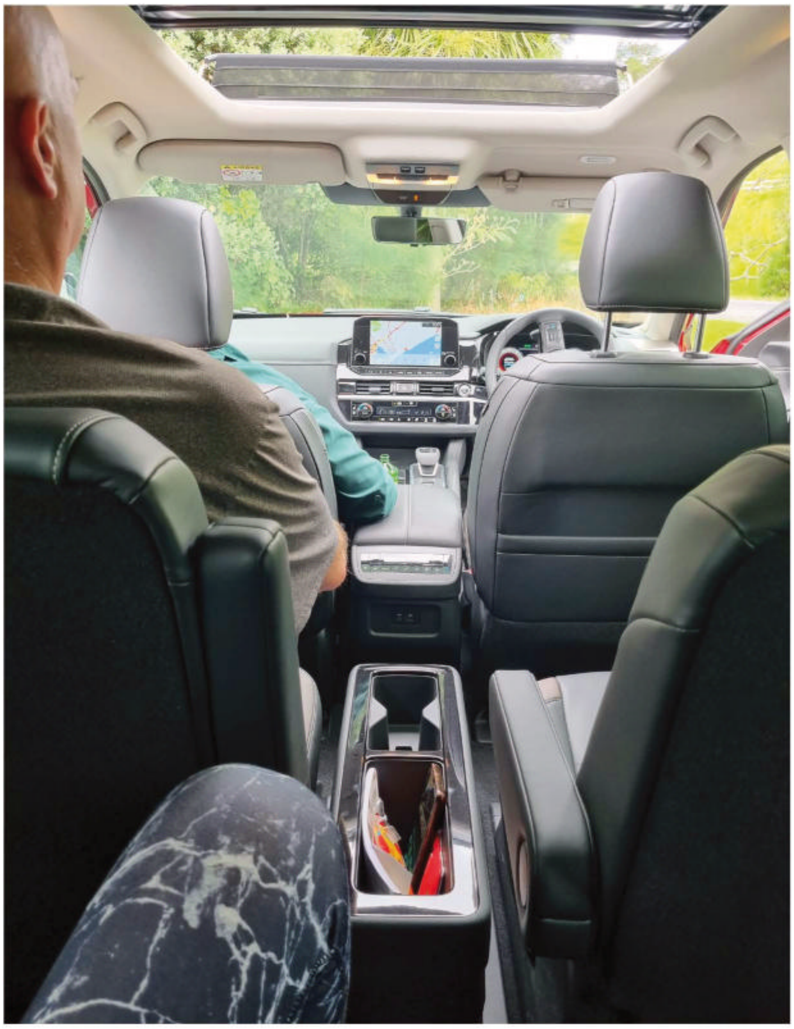
It makes a big difference, especially

Continued page 24 ☛

Well-integrated infotainment screen is well placed for occupants (all seven of them).



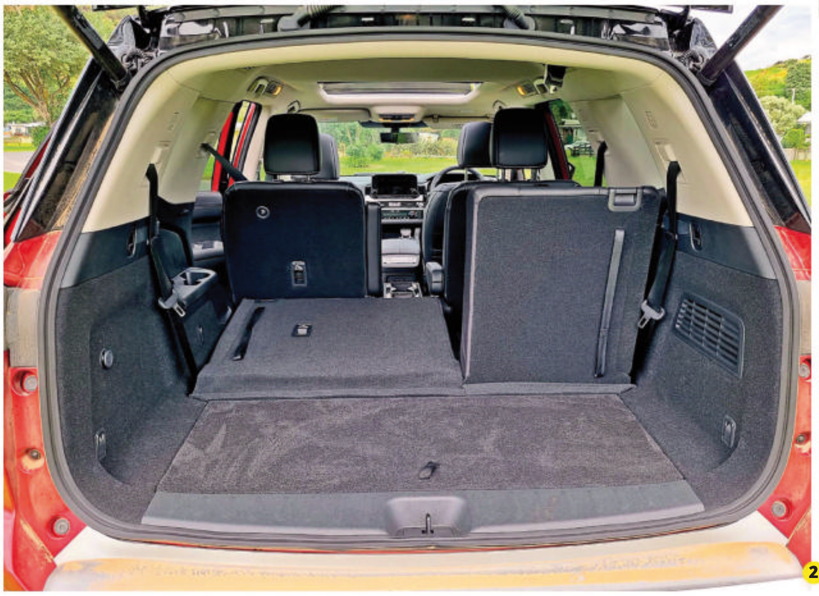
Well planned 'office'.



Three rows of adult-sized seats.

Top: sumptuous third-row seats. Above: second row passengers get their own console.

1



2

SPECIFICATIONS

2023 Nissan Pathfinder Ti-L

Price: $88,490

Engine: 3.5l V6 petrol

Max power: 202kW at 6,400 rpm

Max torque: 340Nm at 4,500 rpm

Transmission: nine speed torque-converter automatic,4WD

Economy: 10.5l/100km*

CO2 emissions: 245gm/km*

Front suspension: independent front suspension with stabiliser bar

Rear suspension: multi-link with stabiliser bar

Wheelbase: 2,900mm

Kerb weight: 2083kg

Turning circle: 11.5m

Towing: 2,700kg braked/750kg unbraked

Brakes: ventilated disc front/disc rear

Wheels/Tyres: Black 20" alloy wheels/255/50 x 20 tyres

Safety: ANCAP five stars

*manufacturer figure

motoring along rural roads in the Waikato during our test.

A welcome secondary effect to these structural enhancements is a noticeably quieter ambience inside the cabin over pretty much any surface.

One further note: the Pathfinder's dust seals are simply among the best we have experienced, especially on the fine white silt and gravel of Klondyke Road near Onewhero.

Safety? The new 2023 Nissan Pathfinder was recently awarded a five-star ANCAP safety rating thanks to an extensive suite of active safety systems included.

It scored 86 per cent for adult occupant protection, 93 per cent for child occupant protection, 78 per cent for vulnerable road user, and 85 per cent for safety assist.

3

4

Standard safety equipment includes:

- Autonomous emergency braking (AEB).
- Pedestrian and cyclist detection.
- Junction assist.
- Reverse AEB.
- Blind-spot assist.
- Lane-keep assist.
- Lane departure warning.
- Rear cross-traffic alert.
- Traffic-sign recognition with over-speed prevention.
- Adaptive cruise control with speed limiter.
- Tyre pressure monitoring (now mandatory in the US market).
- Nine airbags (incl. far-side airbag).
- Reversing camera.
- Rear parking sensors.

In summary, not only has the Pathfinder gone from what some would say was a first-generation 'ugly duckling' to one of the toughest looking SUVs in its class. The new-generation Nissan is a significant leap forward overall with loads of tech, space and safety systems on board.

While it makes do with the same smooth-revving V6 petrol engine as its predecessor, the addition of a new nine-speed auto transmission is a real game-changer when it comes to refinement and driveability.

Then add Pathfinder's newfound roll stiffness, chassis rigidity, and general ride comfort, and this is an SUV more than capable of taking the fight to its toughest rivals.

Driving dynamics, comfort, capability and more: certainly, no owner of any previous-model Pathfinder will be disappointed in the current model's practicality and excellent road manners.

1: The Pathfinder rolls on road-oriented Hankook treads.

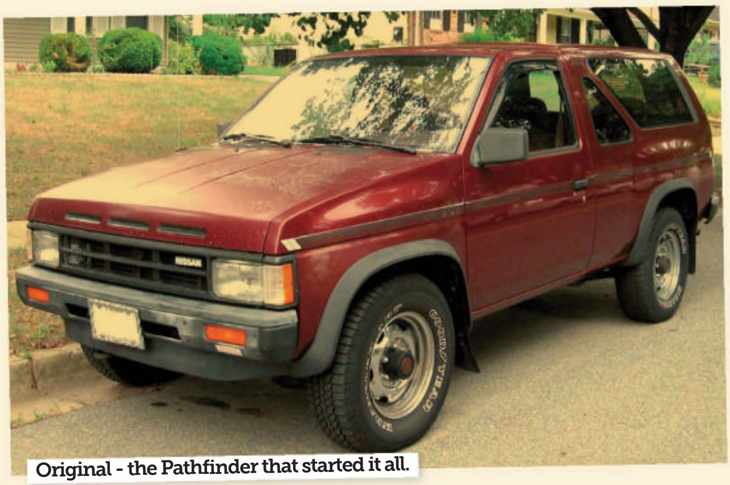
2: Seats up or down, the Pathfinder's cargo capacity is impressive.

3: That new front end is a much tougher look than the outgoing version.

4: Washouts and rain ruts were no problem.

Pathfinder's place in history

Taking on the US market giants



Original - the Pathfinder that started it all.

Second generation Pathfinder (Regulus version).

Tough beast: generation three Pathfinder.

Generation four Pathfinder went very urban.

With a history that spans nearly four decades, it's no surprise that inspiration for the latest Pathfinder can be traced all the way back to the original boxy style version which launched in 1985 and first landed 'down-under' in 1987.

Back then it was two-door, body-on-frame SUV primarily designed for the United States market in answer to rivals' makes and models like the Chevy Blazer, Ford Bronco, Jeep Cherokee, Toyota 4Runner and Isuzu MU.

It shook up the massive American auto market and resulted in what has become known as the 'chicken tax' – the domestic automakers lobbied for hefty duties laid on imported three door SUVs. In New Zealand, the story was similar.

Many 4WDers will have fond memories of the two door and four-door originals, and of course the second generation version, which took pride of place in many driveways - mostly in gold or the even more popular gold-green two-tone scheme.

From 1985 to 1989 Pathfinders were available with either the Nissan VG30i 3.0 L V6 (107 kW/220 Nm) or the Z24i 2.4 L (79 kW) inline four cylinder.

In 1990, the V6 received an upgrade from throttle body injection to a multi-point fuel injection system. This engine was known as the VG30e (114 kW/244 Nm). The first generation continued until 1995.

A facelift occurred in 1990 when the four-door model was introduced. The front grille was revised, numerous interior trim level options became available and numerous exterior packages were offered by dealerships.

The second-generation Pathfinder was introduced in late 1995 with revised styling and drivetrain. The VG30e continued, and new diesel engines became available.

At the 2004 North American International Auto Show, Nissan unveiled a completely redesigned Pathfinder for the 2005 model year. The new R51 Pathfinder used the Nissan F-Alpha platform. It was powered by a 4.0 L V6 engine VQ40DE (198kW/390 Nm) or a 2.5 L YD25DDT (126 kW (171 PS/403Nm) turbodiesel.

Redesigned Pathfinder went on sale in late October 2012 as a 2013 model. It moved away from a body-on-frame, truck-based SUV and adopted a unibody design. It rides on the same platform as the Infiniti QX60, Altima, Maxima and Murano. This generation Pathfinder has an interior similar to the second-generation Murano and the Infiniti QX60.

The new fifth-generation Pathfinder was unveiled on 4 February 2021.

The model remains a unibody crossover, riding on the same platform as the previous generation, though it gains a more squared-off look with styling cues from previous Pathfinders.

Engine power remains the same, at 212kW/351Nm.

The outgoing model's CVT is replaced with an all-new 9-speed automatic from ZF. The fifth-generation Pathfinder also receives a new terrain-management system, dubbed Intelligent 4x4, featuring seven management settings.

TEST

2023 FORD RANGER SPORT

In the May issue of NZ4WD

The 'next-gen' Ranger has shaken the 4WD ute world to the core.

Is the new Sport version the pick of the bunch?

NZ4WD gave it a big hard test and our verdict is in next month's magazine.

Toyota's best gets better

"Wide Track" ute is so much more than 'me too'

Sean Willmot **has questions – and finds answers – during his drive of Toyota's wide track Hilux.**

Question: When is an SR5 Cruiser Hilux not an SR5 Cruiser Hilux?
Answer: When it is a wide track SR5 Cruiser.

This may seem a strange start to an article on Toyota's commercial flagship, but then when the idea of the wide track variant was first announced, other questions came to mind, the first of which was; "why?"

The SR5 Cruiser is the coolest of all the Hilux's, so did it need to be anything more than it already...was?

Toyota seems to think so, which gives rise to another starter for 10: is the wide track SR5 Cruiser the solution to a question only Toyota asked?

Well, that one's a little outside of our purview as commentators with less than direct communications between ourselves and Toyota Japan.

We did manage to solicit some commentary from an SR5 owner who – when asked if his company (he was the managing director) would find a wide track either desirable or useful – replied with a similar question to our first: "why?"

Actually, he elaborated that his regular SR5 more than did what was expected of it and as for having anything slightly larger, he suggested that the 'working Hiluxes' might have been a better bet than his Cruiser, but perhaps Toyota Japan knows something he – and we – don't.

So, let's head out of the realm of speculation for now, and take a solid long look at the flagship Toyota Hilux 4WD wide track SR5 Cruiser (whew! I suspect new owners will want to stop writing that out on a regular basis!)

Quite obviously, the new SR5 has seen a substantial increase in wider wheel track. How much?

About 140mm front and rear – a not inconsiderable increase – has been added laterally, while the vehicle's ride height has increased by 20mm or so. These two increases combined have resulted in improved performance, safety, and capability in on and off-road situations.

This was not done by just adding a couple of inches of steel to the tie rod ends.

A close examination of the front end –

HILUX
TOYOTA
PJN718
HILUX
HILUX

still an independent front suspension coil setup – sees an extended front suspension arm and front stabiliser bar length. As well, the shock absorber angle has been adjusted to improve its efficiency.

Moving to the leaf suspension back end, the rear axle is wider, which has allowed the dampers to be moved out further towards the wheels, thus increasing their effectiveness when it comes to vertical movement.

At the rear, axle length has been extended, which has allowed the dampers to be moved further out towards the wheels.

For the first time on Hilux, a rear stabiliser bar has been installed which has obvious benefits of reducing roll, increasing ride comfort and with all factors considered, improved steering feel when cornering.

Basically, the SR5 Cruiser, as well as having the Hilux' celebrated 4WD credentials is now more tuned to on-road

Continued page 34☛

1

1: Freshened, more aggressive front end.

2: Wide track enhances driving dynamics.

2

PJN718
TOYOTA

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DESIGNED FOR SAFETY

COMMERCIAL BULL BAR from $2299

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HILUX
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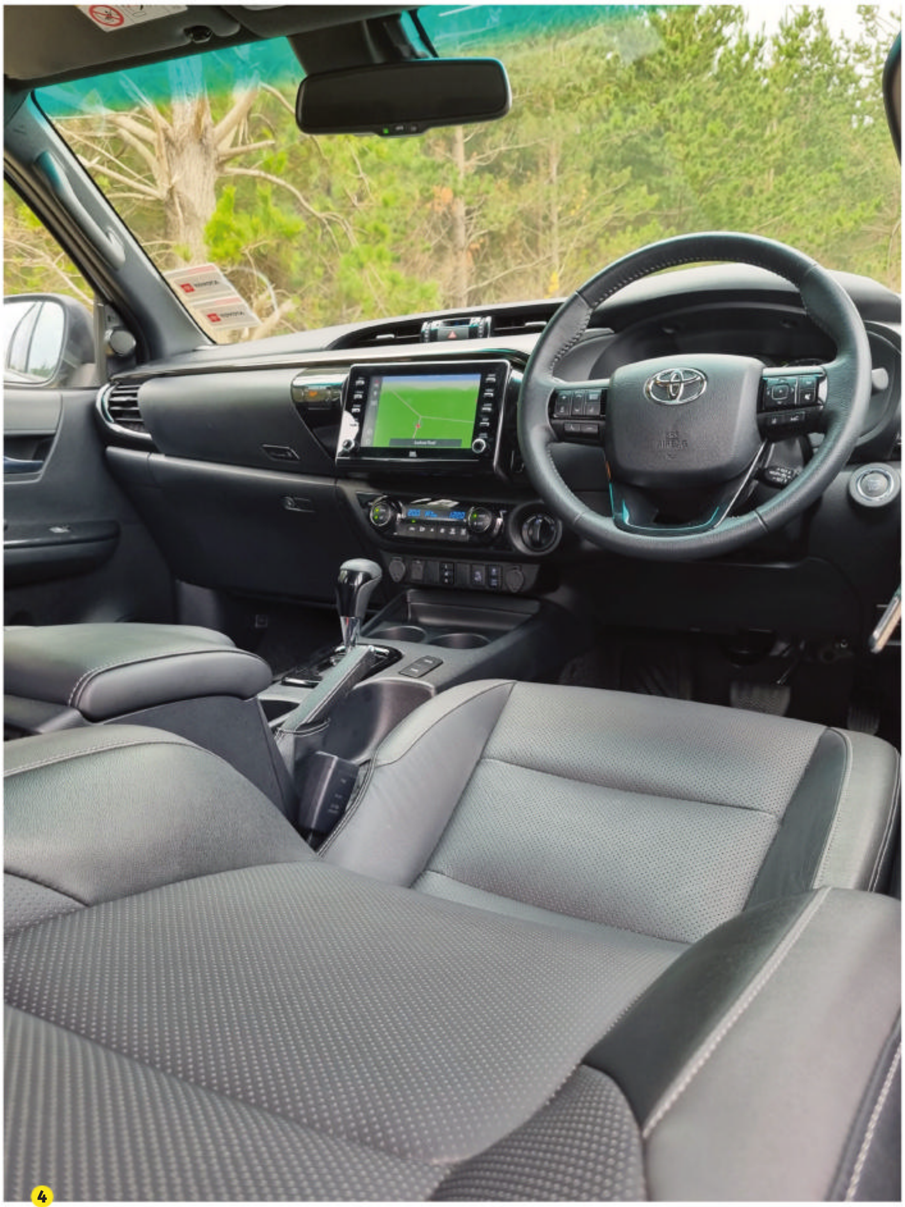
2

SR5 CRUISER

3



4

SPECIFICATIONS

2023 Toyota Hilux wide track SR5 Cruiser

Price: $63,390

Engine: 2.8 four-cylinder turbo

Max power: 150kW at 3000-3400rpm

Max torque: 500Nm at 1600-2800rpm

Transmission: 6-speed automatic

Economy: 9.5l/100km*

CO2 Emission: 252g/km *

Front suspension: Double wishbone independent coil with stabiliser bar

Rear suspension: Rigid leaf spring with stabiliser bar

Wheelbase: 3090mm

Kerb weight: 2080kg

Turning circle: 12.6m

Towing: 3500kg braked/750kg

Brakes: Ventilated disc front and rear

Wheels/Tyres: 18"x 7.5" Alloys/Dunlop 265/60R18

Safety: ANCAP 5 Stars

1: Hilux load space is well protected

2: Durable tray protection, plenty of load tethers.

3: Ground clearance and attack angles remain excellent.

4: Dash remains distinctly 'Toyota family'.

1

2

conditions than it has been before.

To further add to this – and given Toyota's design engineers were adjusting the underpinnings with an eye to having a pronounced effect on handling and driving confidence anyway – it seemed appropriate to upgrade the braking capabilities of the SR5 Cruiser.

Thus, we now see sports-oriented rear ventilated disc brakes replacing the previous drum brakes at the back, while the front discs have been enlarged to 17-inches.

All of which is very nice technically, but Toyota isn't in the habit of doing things by halves, so there has been a little cosmetic enhancement too, with the inclusion of chunky over fenders and a little widening of the front body to give a more integrated look to the front bumper unit with its integrated fog lights.

One last mention of upgrades before we get to the nitty gritty drive experience.

The Hilux' extraordinary suite of safety features has seen two significant additions; namely blind spot monitoring and rear cross traffic assist.

This makes the wide track SR5 Cruiser one seriously well-equipped, well thought out ute which yes, does acquit itself really well on-road.

With our main highways becoming more and more like country bumpkin roads (not helped by flooding, I'll admit, but let's not pull punches here, our state highways are positively third world compared to what they once were) improving the on-road ability of utes is definitely a smart step on the part of a ute builder.

Let's be real for a second and ignore all the 'this truck can go anywhere hype' we are so used to seeing from ute manufacturers in general.

Utes like the wide track SR5 Cruiser make a statement which mostly says 'I'm at the top of my game' rather than being a hardcore working rig – though in fairness, the Toyota can do the mahi if required – and as such, being set up to deliver a more sophisticated on-road ride is more important than being able to leap like a mountain goat from cliff to cliff.

And the more I think about it, the more Toyota's wide tracking of the SR5 Cruiser makes sense.

In off-road situations, well, it IS a Hilux after all, and we all know, thanks to the Bugger and Crumpy/Scotty ads of old that off road, the Hilux is more than capable.

When faced with lightweight gravel road conditions the wide track seems to be more controllable and stable, even when encountering heavily wash-boarded trails with an unladen tray.

Being an SR5, the wide track Cruiser's carrying ability is a tad compromised – 35kg less payload than the regular SR5 – but your overall width is better by 165mm and height is up 15mm overall so there's more trade-off than compromise – at least where the theoretical numbers are concerned.

And now the good stuff, what is the wide track SR5 Cruiser like on the inside?

It's fair to say Toyota has come up with one of the more cohesive cabins in the modern ute space. Hilux does buck the trend somewhat and has retained an older style interior but it is comprehensive, clean and cultured. Ergonomics are excellent and the quality of the equipment onboard, cameras, switchgear, digital display, trim and JBL audio suite are beyond reproach.

I did find the slightly proud speakers at the base of the A-pillars a little distracting, especially with their chrome surrounds, but other than that, I found the cabin hard to fault.

To be honest I was expecting a little less of the seats as they look a little on the hard wearing but plain side, however, the bolster is excellent as is the day-to-day practicality, while the seat heaters reinforce the SR5 Cruiser's luxury cachet.

Is the wide track SR5 Cruiser perfect then? Well, no, everyone's going to have their own take on a $60k + ute and it's reasonably easy to pick holes in any vehicle of this nature.

Looking at it with a broad-stroke brush however, marrying the wide track's road and ride refinement thanks to the suspension changes and the SR5 Cruiser's top end equipment and specification level suggests that Toyota is maintaining its commitment to continuous improvement for its customers.

Will that shore up the market share? For the True-to-Toyota customers, absolutely. For newcomers to the fold?

Well, the wide track SR5 Cruiser has more subtlety than its competition but it does have comparable credibility, so before you push the button on buying that top end ute, do the right thing and do your homework – you may be surprised at what you find.

1: Deceptively good seats.

2: Robust new wheelarch flares, road-oriented tyres.

Toyota Safety Sense:

Pre-Collision system with Autonomous Emergency Braking and pedestrian and cyclist detection,
Dynamic Radar cruise control
Lane Departure Alert with Yaw Assist function (brake control)
Road sign assist

Along with:

Active Traction Control
Anti-lock Braking System
Brake Assist
Down-hill Assist Control
Drive-Start Control
Electronic Brake-force Distribution
Emergency Stop Signal
Hill-start Assist Control
Traction Control
Trailer Sway Control
Vehicle Stability Control
Reversing Camera
Parking Sensors

RSI SmartCap canopies

A canopy for work and fun

The globally renowned RSI SmartCap canopies are now available in New Zealand. There's a reason why the brand is developing a cult following around the world.

Tradies and outdoor enthusiasts know how important it is to have a reliable and versatile canopy that can protect gear from the elements. RSI Evo Sport SmartCaps are the perfect solution for people who want to make the most out of their outdoor adventures while remaining functional for day-to-day use. With their unique features and high-quality materials, they provide a safe and secure shelter for all equipment.

One of the standout features of the RSI SmartCap Canopy is their durability. Made of high-quality powder-coated stainless steel, these canopies can withstand even the toughest outdoor conditions, rain or shine. They are designed to be lightweight yet strong, which makes them easy to customise and maintain.

airplex
car, ute, truck accessories
SMARTCAP
4x4

Another great feature of the SmartCap Canopy is versatility. They come with roof rack-ready tracks built tough enough to handle the biggest of roof tents and platforms to increase storage space and carry more equipment. Accessing gear is a breeze with enormous pop-up side doors in conjunction with flush sliding dog hatches, meaning the dog has ventilation and a view for the ride. Tinted glass keeps tools out of site while allowing good visibility from the cab without the need for a rear camera.

RSI SmartCap offers a sleek and modern

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SMARTCAP
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airplex
ute, car & truck accessories
RSI CANOPIES • STEELTOP CANOPIES • UTE HARDLIDS • NUDGE BARS • SLIDE TRAYS • DRAWERS & MORE

design that adds a touch of style to a vehicle. They're an ideal choice for outdoor enthusiasts who want both practicality and aesthetics. When planning a camping trip, a day out in nature, or just transporting gear to and from work, RSI Canopies are a smart and practical choice.
Available for most late model utes, including popular American pickups.

Features Include:

➔Integrated Roof Rail Tracks.
➔Positive Pressure Filtered Air Vent.
➔Front Flush-Bonded Slider Window.
➔Huge Access Pop-up Side Doors.
➔Flush mounted dog windows built into side doors.
➔High Stop Brake Light (On most models).
➔High Quality Matte-Black.
➔Automotive Paint Finish.

RSI SMARTCAP

Ironman's new bars

Airbag compliant design

These days, a bull bar has three key missions: protect the 4WD, protect other motorists and still look awesome.

It is required to comply with strict safety standards.

Vital for rural and remote area travel, bull bars provide substantially improved protection for vulnerable mechanical components against animal or brush strikes while providing a solid base for mounting other accessories like driving lights, winches and CB antennas.

Ironman bull bars are engineered and manufactured to not only maintain maximum functionality, but also to ensure they complement the look of the vehicle.

The company's latest bars feature triple loop A-frame design, are designed to be compatible with winches, feature mount points for hi-lift jacks, dual radio aerials and spotlights or light bars. Importantly, they are also designed to allow for parking sensors and to allow for airbag compatibility.

Ironman develop all 4WD products from the ground up, taking into account a wide range of uses and customer needs.

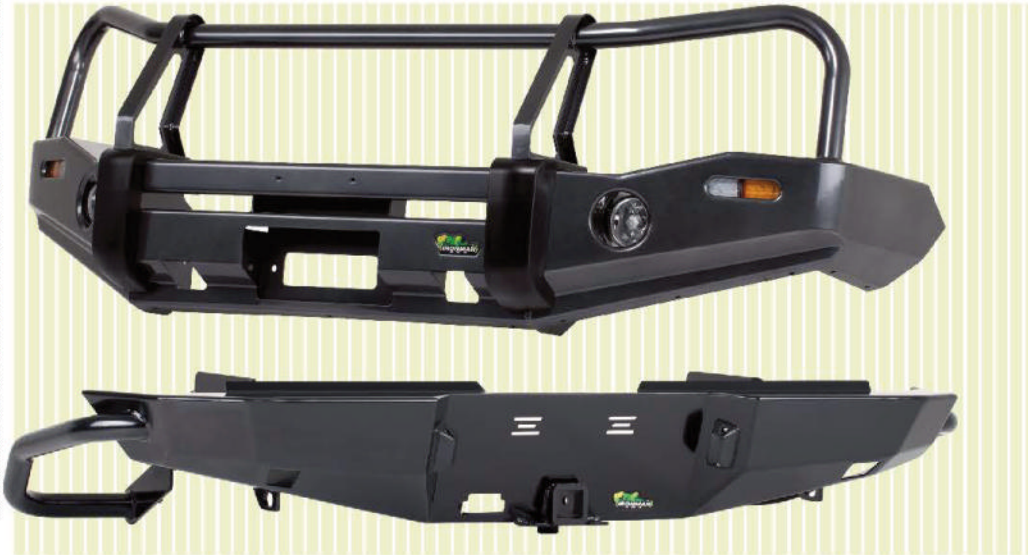
The company uses 3D scanning and CAD modelling alongside extensive engineering and third-party testing.

Bars are supplied in black powder-coat or can be colour coated in vehicle colours.

Ironman also offers a rear protection tow bar in four mm steel which complements its bull bars. Built into each bar are rear tow point and high lift jack mounts. Each rear bar is supplied with a 50mm tow ball.

The hitch is rated to 3,500kg.

In all applications except Hilux, the design includes protection for vulnerable side panels.



BUSHTECH
ALUMINIUM CANOPIES
www.xpeditionz.co.nz
XpeditioNZ
SR5 CRUISER
PCG642

The XpeditioNZ overland Hilux is being built with serious brands from around the world.

Tough, dust-proof, practical

Ultimate Hilux Overland Build Gets a Bushtech Aluminium Canopy

Aaron Rich runs through his decision to fit a Bushtech Aluminium Canopy - a canopy that's next-level dust proof and stays clean inside.

With years of global 4WD overland experience across dozens of countries and whole continents, I learned that many serious overlanders around the world are using much better gear than has been offered in New Zealand, until now.

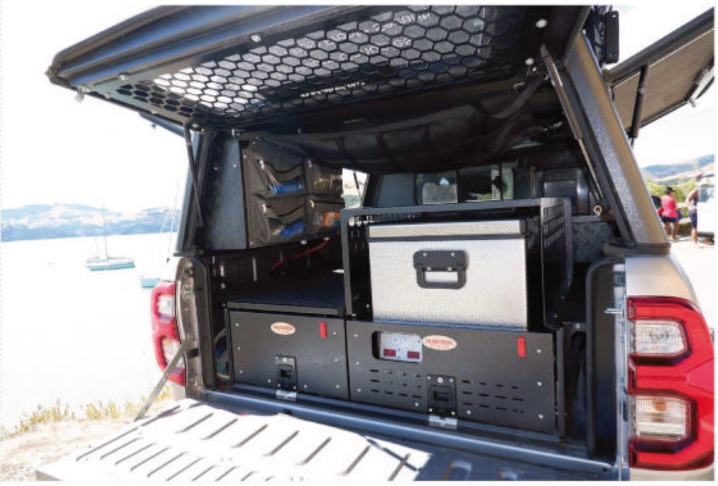
There's only one canopy I would fit to this ultimate NZ Hilux build, and that's a Bushtech Aluminium Canopy. These things are handmade in Johannesburg to a standard, strength, and capability that's unmatched on the NZ market.

There are now thousands of Bushtech Aluminium Canopies in service around the world, including on permanently off-road fleets operating in some of the most arduous conditions on Earth. Bushtech canopies are highly evolved relative to what's been available locally.

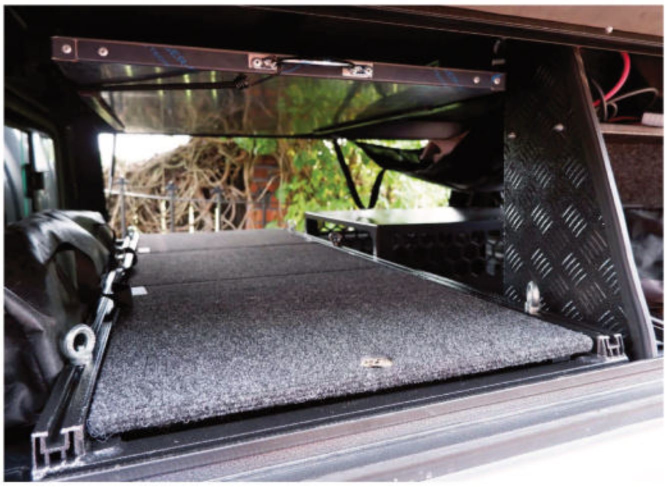
Owners want the next-level Bushtech internal fitout pictured to remain dust-free when driving miles of gravel roads, or off-road. Bushtech canopies are uniquely 'Africa-level' dustproof and 100 per cent weatherproof.

The specialty rubber seals on Bushtech canopies, developed and proven daily in Sub-Saharan Africa, are a point of pride at Bushtech for good reason.

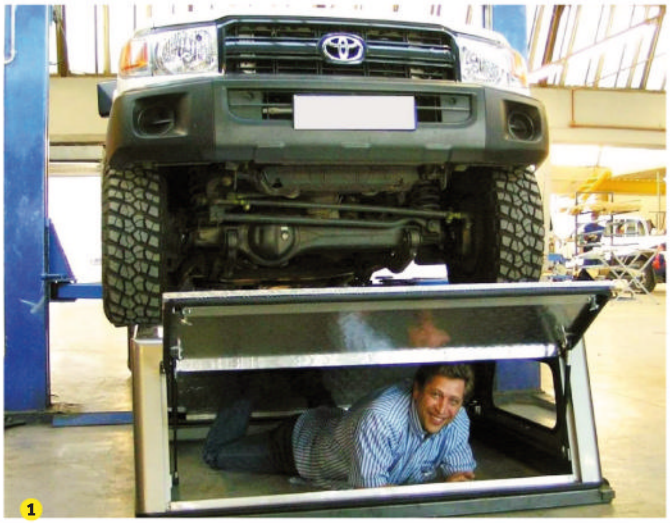
All Bushtech canopies ride on an impressive suspension base rubber; equally as important to load bearing capacity as to prevention of dust ingress. Side door rubber seals remain always well



This full overland internal fitout from Bushtech is next-level for NZ. Much lighter zincalume construction, auto lock-in/out, concealed 55-litre water tank.



False floor conceals a large rifle storage box. Robust stainless steel table mounted in canopy ceiling. Fitout includes a world-proven National Luna fridge.



BUSHTECH
ALUMINIUM CANOPIES
XpeditioNZ
TOYOTA
HILUX
PC6642

1: Bushtech canopy demonstrates its strength 300kg dynamic/2,500kg static load.
2: Big jobs call for a tig welded Bushtech canopy, not canopies that bolt together. (EEZI-AWN SWORD family hard shell pictured).

seated, resisting dust ingress even under the vibrations of driving corrugations off-road. This is achieved by specially engineered internal door bracing you won't find in other canopies.

On cheaper aluminium canopies rivets often appear through the door skins – not with a Bushtech. On a Bushtech the locks and gas struts mount to the unique, internally reinforced door frames. Better for security too.

What about the Wellside?

Most will know that the tub on all utes have many holes and gaps that permit dust entry. Bushtech's model-specific, laser-cut tailgate and wellside dust sealing kits take care of this.

I recently put the complete Bushtech package on our Hilux to a real-world test, driving 182 kilometres of gravel roads through the Molesworth in the summer heat and dust with extremely impressive results. Despite driving in clouds of dust, inside the canopy remained clean.

In the search to move on from plastic/fibreglass canopies, only aluminium gives the ideal combination of strength and light weight. Steel can't come close. A Bushtech aluminium canopy typically weighs just 65kg - even lighter than plastic/fibreglass canopies.

Bushtech canopies are load tested to an unheard of 2.5 tonnes. The strongest plastic/fibreglass canopies would be splinters and dust long before bearing a load remotely near that.

With a deformation load several times higher again, no strain is evident under 2.5 tonnes and doors open and close normally. In NZ we're not used to thinking in terms of canopies that are stronger than the ute that carries them.

Chinese aluminium canopies supplied as flat packs, requiring assembly, are now appearing in NZ. These claim up to 300kg load capacity and at face value one might be misled to think these offer comparable strength, or at least sufficient strength.

These flat-pack canopies have at best 100kg of dynamic load capacity, which is only around the same as the strongest of the plastic/fibreglass canopies. That's just not strong enough for most overland builds involving an increasingly popular hard shell roof tent. Add roof rack, tent and awning, and roof loading won't be anywhere near 300kg up top, but could be up to a number like 140kg. Driving with that will void the warranty of most other canopy brands and cause constant worry about cracking the canopy. In contrast, a Bushtech canopy is well within spec and ready for any off-road adventure.

Bushtech canopies are built around a frame extrusion tested to five tonnes during development. They are tig welded and supplied fully made up, hand finished with weld seams invisible. Even the powder coats used are super premium. And they typically install in 45 minutes.

Inside, there are Zincalume drawers that weigh in at around 71kg - maximum strength and minimum weight, like the canopies. And the modular Bushtech system all just slots into place in an easy morning's work. The drawers also conceal a hidden 55-litre water tank.

To check out this canopy and the Hilux overland build on a ute go to ***www.xpeditionz.co.nz***

XpeditioNZ

With years of experience undertaking global 4wd expeditions we uniquely understand the difference our world expedition-grade brands make to successful overland journeys.

BUSHTECH ALUMINIUM CANOPIES
Eezi-Awn
National Luna

- **2,500kg load tested!**
- **Bushtech Aluminium Canopies.** Ask about our dust-free overland canopy solutions. NZ's strongest canopies are lighter too. Load Capacity 300kg dynamic (2,500kg).
- Ultimate overland ute drawer package. Fridge ready, auto lock-in and lock-out, super lightweight zincalume construction, hidden 55 litre water tank. Keep it dust-free off-road with a complete Bushtech system!".
- **EEZI-AWN K9 Roof Racks.** No plastic/nylon corner inserts. Welded, true expedition-grade roof racks.
- Specialists in serious globally proven hard shell roof tents. EEZI-AWN Blade, Stealth, Sword.
- Original EEZI-AWN canvas roof tents (40 years), set apart by much superior South African woven canvas.
- National Luna 12v portable refrigeration. World leading insulation & performance in extreme conditions.
- Off-grid 12v power and LED lighting.
- Innovative camping furniture.

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Look after that 4WD

Extreme weather? Extreme fun? Time for some maintenance

New Zealand has had a bit of weather this year.

The lucky 4WD owners among us have managed to have some fun too.

Our 'summer' has taken its toll on roads, houses, livelihoods. It's also had an effect on vehicles.

At home or at the workshop, it's time to take a close look at – or under – the vehicle.

Step 1: clean thoroughly. Get down on both knees and clean everything under the vehicle. If using a pressure washer, avoid suspension joints, steering knuckles and steering and brake components – they're protected by rubber boots for a reason, and a fast jet of water will get inside the boot, sitting there and rusting the important metal parts.

Brakes need close attention. They suffer abuse without complaining, but going into winter, it's time to give them a bit of love.

Think fresh pads or linings, a good clean-up and inspection of everything, and then a good thorough bleed-through to ensure the brake fluid is up to the job. Fresh fluid makes a world of difference to pedal feel and braking effort – a good bleed-through gets rid of old fluid near the calliper pistons and brake cylinders, purging impurities and air bubbles at the same time.

Check calliper and wheel cylinder protective boot for rock or stick damage, and go closer if there is any brake fluid coating the components. Dry is good, wet is bad and indicates brake cylinder or piston seals are leaking.

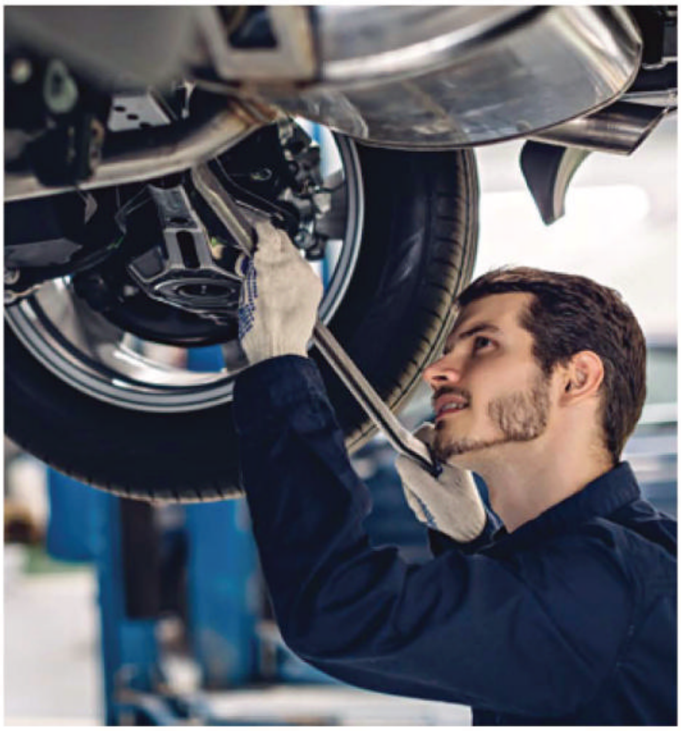
Bear in mind, brakes will run hot off-road, even at low speed. Disc rotors or drums will fail early if subjected to repeated use at high temperatures. Check those surfaces for cracking or 'crazing' and if in doubt, replace them. It's an investment in safety.

Shock absorbers are 'consumable', they usually wear out without obvious problems. Give them the 'bounce' test, it's more reliable than online recommendations. Push down on each 'corner' in turn, then release. If the vehicle only rebounds once, it's fine. Two, three or more bounces and it's time to replace them. Shock replacements can be done DIY in the garage unless the change is a more ambitious upgrade or people are grime-averse; in which case there are many very good suspension shops that can do the job.

On or off-road, changing shocks is a simple way to transform the vehicle's handling and braking.

Whatever is on the maintenance worklist, and whether it's DIY or 'Do It For Me', get into it!

> “Bear in mind, brakes will run hot off-road, even at low speed. Disc rotors or drums will fail early if subjected to repeated use at high temperatures.”



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- USED PARTS -
- RECONDITIONED -
PARTS
WARN
TJM
4X4 EQUIPPED

Smart signage to promote the new identity

The world of auto recycling has been turned on its head these days compared to what many readers will remember from the past. The ToyComm team is looking to take a further step on that journey.

ToyComm has branches in Tauranga and Christchurch (these were originally the well-known Bayside 4x4 and Lineside businesses). Both were Toyota specialists covering primarily Hilux, Hiace and Land Cruiser models. They have now expanded a bit to include Ford Ranger, Mitsubishi Triton and Jeep Grand Cherokee models. They cover vehicles from 1990 to 2023.

The two branches have a combined staff of around 20 people. Tauranga dismantles vehicles and holds a large range of parts whilst Christchurch does the same along with having the rebuild team on site. They carry around 50,000 items in stock.

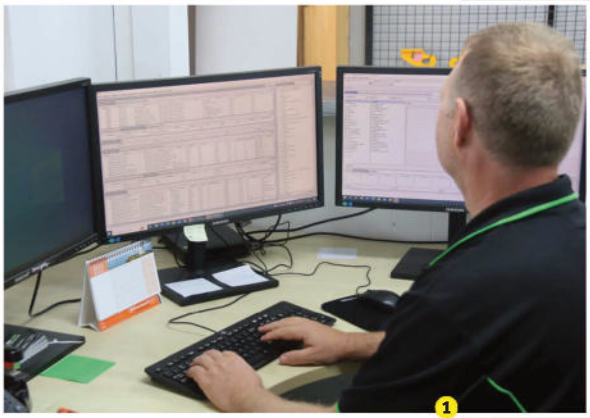
Part of their secret sauce is a sophisticated overseas software program that assists them in terms of what stock to buy, what parts to remove from the vehicle and what to rebuild based on previous demand and current stocks. They prefer buying in vehicles without major damage.

When a vehicle arrives, it receives a pre-dismantle inspection, the engine is cleaned and run and compressions are tested. Then the quick moving parts are removed (usually around 80 per cent of the parts) and the shell is stored in

Every part is scanned and tagged to keep track of the inventory.

11-1753-E0-6R
A

0000021359
Stock #: AMTG21
Year 1990 'C N65841
Model HIACE
Part LEFT TAILLIGHT
Comments NEW AFTERMARKET - IMPORT TYPE - 26-29
Description LH/RZH10#, LENS# 26-29, 89-05 (IMPORT)



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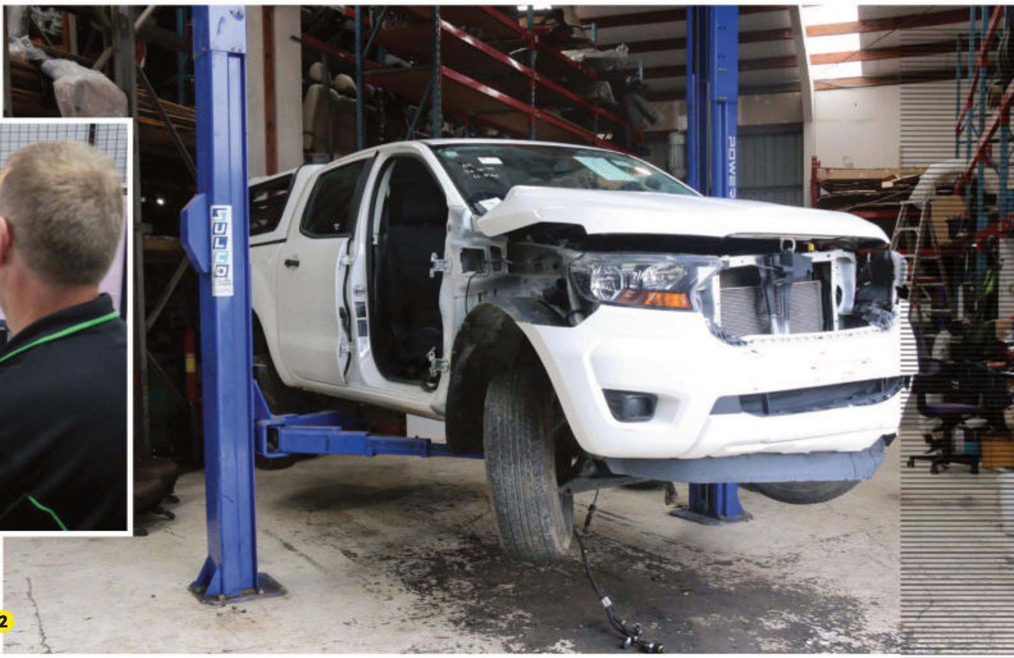


2

the yard for 6 to 12 months where they can be used for body cuts, panels and miscellaneous slower moving parts supply. All parts are photographed and coded with scannable barcodes assigned to keep track of them.

Items not being kept are sent for recycling, this will include steel, aluminium, wiring harnesses, batteries, catalytic convertors, tyres and oils.

All parts are inspected and tested to decide whether they go to stock or are sent to Christchurch to the rebuild team. If there is any possibility of a potential warranty issue around a recycled part it will be sent for rebuild instead. This includes engines, transmissions, transfer boxes, drive shafts, brake calipers and steering racks or boxes. Tauranga receives a steady supply of rebuilt items back to hold in stock. This becomes self-sustaining as rebuilt items are usually supplied on an exchange basis generating further stock to be rebuilt.

As well as the recycled and rebuilt stock ToyComm are also agents for Don Kyatt (Terrain Tamer) so they can supply new parts and accessories too.

ToyComm go well beyond what you would expect from an Automotive Recycler and their team are very proud of the business mantra of “Where quality and expertise count”.

Feel free to call the team on 0800 494 772.

3

4

1: The sophisticated computer system is the key to business efficiency.

2: Ford Ranger ready for the dismantling process to begin.

3: Rebuilt Hilux engine .

4: Everything is carefully racked and stored.

Bendix
4WD SUV
DISC BRAKE PADS
ON ROAD FEEL
OFF ROAD TOUGH
Great pedal feel and quiet stopping performance
EPR
EXTREME STRENGTH

Bendix stops the 'Cruiser

New brake pads for Land Cruiser 300 Series and V6 Amarok

Few model releases generate as much excitement in the automotive world as a new Toyota Land Cruiser. The 300 Series continues the tradition, both here and in Australia.

After a long wait for prospective owners, the great news is that the first of these vehicles are now available locally, and Bendix is well underway developing braking products specifically to suit the new Cruiser.

While the Bendix aftermarket component range for the LC300 will grow in coming months, as of February initial products have become available. On offer are front and rear disc brake pads from Bendix's 4X4-focused 4WD/SUV range.

The 4WD/SUV range is specifically developed for four-wheel-drives and SUVs for use in both on and off-road applications and provides low noise and dust operation and reduced brake fade at higher temperatures.

Range extensions

Staying within the 4WD and SUV category, the Ultimate 4WD range has expanded and is now available to suit selected VW Amarok models 2018 onwards with the V6 engine, and Land Rover Discovery 3.

There's also a first release of the 4WD/SUV range suitable for 2021 Hyundai Tucson and Kia Sportage and for the Toyota Fortuner from 2018 onwards.

General CT pads have been introduced for Mazda CX-8 and CX-9 models from 2016 and 2017 onwards respectively.

Other February releases

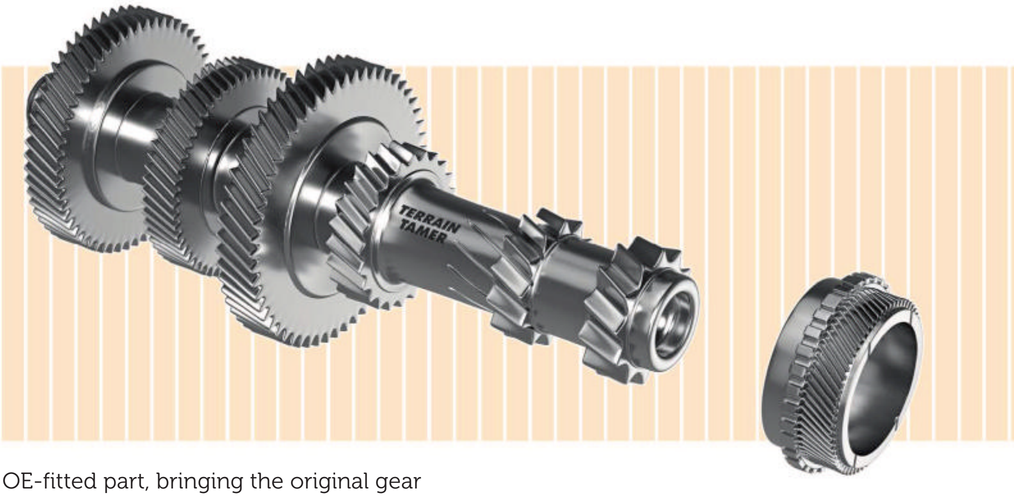
Bendix has also released a new range of heavy-duty disc brake pads for hardworking Volkswagen Crafter van and cab chassis models. The additions suit models from 2017 onwards and include both front and rear options (model dependent). Bendix's heavy-duty brake pads are a great fit for working vehicles that carry and tow heavy loads – they also last up to twice as long as all-purpose pads and thrive at higher temperatures.

Street Race Track pads are also now available to suit a greater range of Ford Mustang and Mitsubishi Lancer EVO models, while Ultimate+ Pads can now be selected for Ford Focus XR5 Turbo and Lexus RX and VW Golf GTi models.

Rounding out the latest Bendix pad additions are new HD offerings for the 2021 model Mitsubishi Outlander along with additional products for Suzuki (Ignis), Haval (H2), Peugeot (3008 and Expert), Ford (Focus, Escape, Holden (Commodore), Honda (Accord) and VW (Golf and Tiguan).

Taller Toyota cogs

Quieter, cheaper running from modified fifth gear



Terrain Tamer has released a second modified fifth gear set suitable for Hilux, Prado and an expanded range of 70 series Land Cruiser models.

The original modified fifth gear set was released in 2017 and designed to fit 70 Series V8 Toyota Land Cruiser vehicles. A commonly raised issue for these models is that the engines run at unnecessarily high RPMs when travelling at highway or cruising speeds. A speed of 100km/hr in fifth gear can equate to approximately 2400rpm, causing loud engine noise, high fluid temperatures and poor fuel consumption, with a detrimental long-term effect on engine durability.

A second gear set has now been developed for a further range of vehicles that have been reported to experience the same problems.

Terrain Tamer have developed their modified gear sets to feature a taller fifth gear as a direct replacement for the OE-fitted part, bringing the original gear ratio of .881 down to .736, reducing RPM by up to 20 per cent, and effectively resulting in improved engine stability, addressing any fuel efficiency or running temperature issues that may arise from the shorter original gear and generally offering a smoother and quieter drive.

Developed at Terrain Tamer's head office in Melbourne, this taller gear has been made from 62 strength Rockwell hardened steel by an OE manufacturer in Japan to meet exclusive Terrain Tamer tooling specifications.

Terrain Tamer modified fifth gear sets can be purchased individually or in gearbox overhaul kits. For more information on this or on Terrain Tamer's full range of parts, visit **terraintamer.com**

ULTIMATE 4WD UPGRADED

Bendix

Whether it's the Ultimate 4WD™ Brake Upgrade Kit, Ultimate 4WD™ Big Brake Upgrade Kit or Ultimate 4WD™ Drum Brake Upgrade Kit, Bendix has your 4WD needs covered. Bendix brake upgrade kits include all the parts needed to upgrade most popular 4WD wagons and dual cab utes, plus a host of ancillary items, so you can work, explore or tow knowing that you can stop safely with Bendix.

ULTIMATE 4WD BRAKE UPGRADE KIT

Front Kit Contents

- 2 × Ultimate 4WD™ Brake Rotors
- 1 × Set of Ultimate 4WD™ Brake Pads
- 1 × Vehicle Set Ultimate 4WD™ Brake Hose
- 1L Heavy Duty Brake Fluid
- 1 × Can Bendix Cleanup
- 1 × Tube Ceramasil™ Brake Parts Lubricant
- Bendix rotor wipes
- 1 × 60L Icebox

ULTIMATE 4WD BIG BRAKE UPGRADE KIT

Front Kit Contents

- 2 × Ultimate 4WD™ Disc Brake Rotors
- 1 Set × Ultimate 4WD™ Brake Pads
- 2 × Bendix 6-Piston Monoblock Calipers
- Bracket Mounting Kit
- 1 Front Set × Ultimate 4WD™ Brake Hoses
- 1 Litre Heavy Duty Brake Fluid
- ADR Certification
- 1 × Can Bendix Cleanup
- 1 × Tube Ceramasil™ Brake Parts Lubricant
- 1 × 60L Icebox

ULTIMATE 4WD BRAKE DRUM UPGRADE KIT

Kit Contents

- 2 × Ultimate 4WD™ Brake Drums
- 1 × Ultimate 4WD™ Brake Shoe Kit
- 1 × Can Bendix Cleanup

NOTE: Images for illustration purposes only. Contents may vary.

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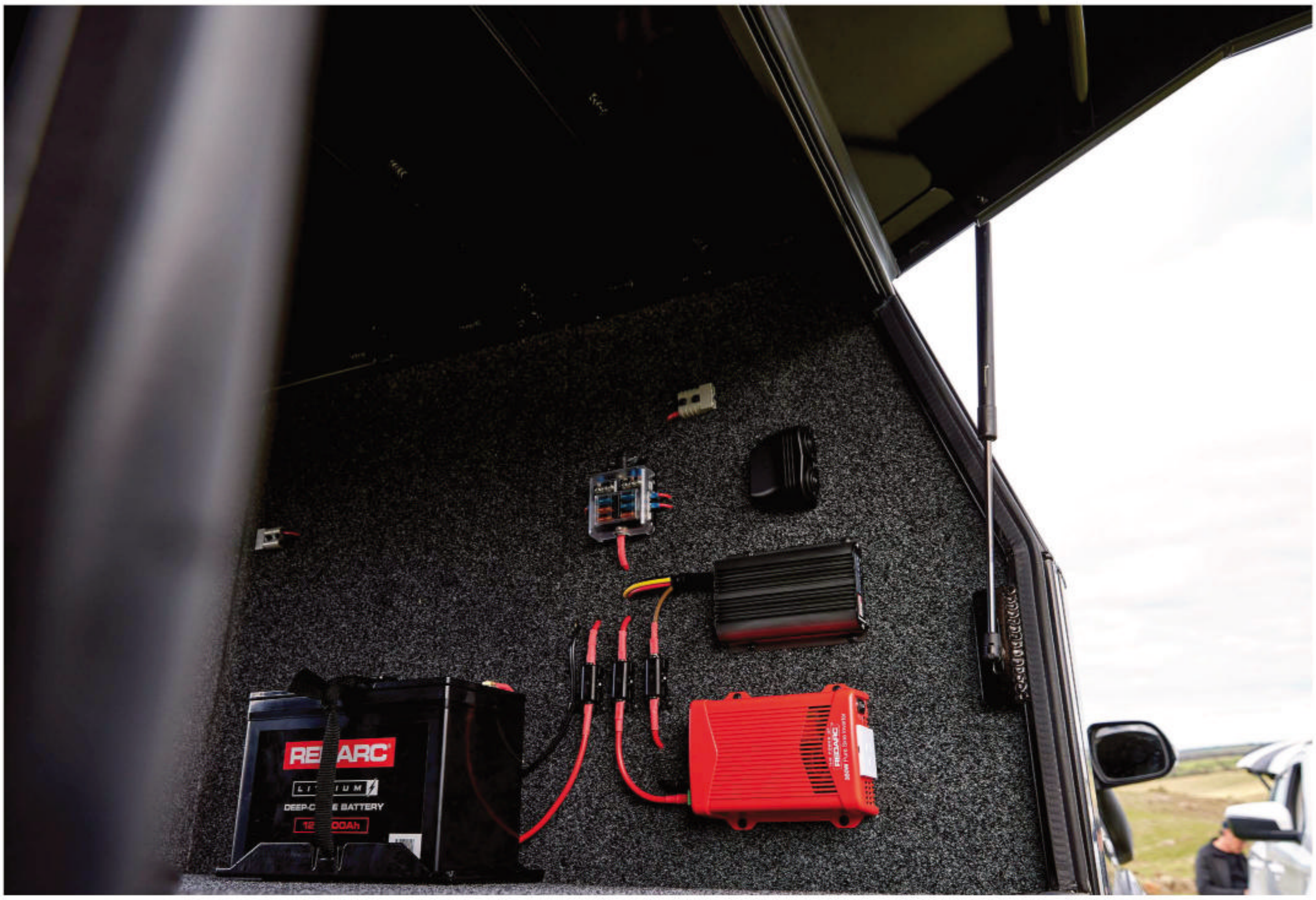

Power system update

Where to mount that onboard battery charger

“Where do I mount my BCDC?” Is a question faced by the Redarc Technical Support Team every day. While there is not technically a right answer, there are multiple things that need to be considered when not only choosing where to install your BCDC, but also which BCDC model is the right one.

As a starting point, Redarc recommends looking at where the auxiliary battery is going to be located.

For the best charging performance, the BCDC should be installed as close as possible to the auxiliary battery. Less than a metre between the BCDC and battery is best practice. Keeping the BCDC and battery close together means voltage drop between the battery and charger is minimised, but often this is not the most practical solution.

Once the location of BCDC and auxiliary battery are finalised, it is necessary to choose between the BCDC Core and BCDC Classic models. This choice often also depends on where the BCDC will be mounted.

For under bonnet mounting, or anywhere that is going to be exposed to extreme heat, dirt, dust and water, the BCDC Classic is the way to go. Being fully sealed, there’s no need to worry about the electronics inside being exposed to anything that could damage them. They can also withstand the engine bay heat and will operate at full capacity up to 80° Celsius.

If the auxiliary battery and BCDC are going to be a bit more protected, the BCDC Core is a great option. Perfect for installations that are protected from water, heat, and dust, the BCDC Core is designed to be mounted in cabins, canopies or boots - or stowed behind interior panels or seats. With no exposed fans or noise, it’s a great option for staying charged without ruining the look of the vehicle. The BCDC Core is also a more wallet-friendly option.

To make installation easier, Redarc has a range of BCDC mounting brackets and wiring kits. With a mounting bracket to suit many major vehicle makes and models, they allow for easy installation of the BCDC Classic in the engine bay. Redarc’s range of BCDC wiring kits include all the parts needed for installing your charger, with different configurations depending on the charger installation and battery locations.

All chargers in Redarc’s BCDC range are lithium ready and feature an in-built MPPT solar regulator. With Green Power Priority as standard, Redarc’s BCDCs will take power from solar as a priority before using supplementary power from the vehicle’s alternator when available.

Built to be compact, quiet, and reliable, the BCDC range is designed, tested, and manufactured in Australia and, like Redarc’s whole product range, are backed by market leading technical support and the REDNetwork certified installer network.

Learn more about the BCDC Core at **redarcelectronics.co.nz/core**

Re-shock that 4WD

Thinking KYB? Think Mount Shop

Anyone who has ever looked under their 4WD, SUV or even car and found something amiss with suspension, steering, bushes or bearings, has probably heard of – if not been in touch with – Mount Shop.

And if the name doesn't jog the memory, these are the under-vehicle specialists with a national network of large yellow buildings!

Mount Shop is a specialist under-vehicle component supplier, carrying an extensive range of suspension parts, steering rack components, bump stops, engine, body and subframe mounts, hoses, pulleys and idlers and hanger mounts.

This is a big enough catalogue, but the fact that all of these under-vehicle components are carried for most makes and models found in New Zealand is mind bending.

Mount Shop's director Hemi Toia, is pleased to announce the addition of the KYB product range to Mount Shop's extensive product offering.

"KYB is a world leader in the development and application of hydraulics technology and as a brand, is sold in more than 100 countries," explains Hemi. "With that in mind, it makes logical sense for Mount Shop to distribute such a well-recognised product range."

Mount Shop's product range is comprehensive, but the automotive industry is one of constant change and improvement. This goes some way to explaining why KYB products have been added to Mount Shop's inventory.

"KYB is at the forefront of undercar system development and has excellent products well suited to our diverse needs here in New Zealand," says Hemi.

"The product range is well supported with a high level of technical back up and proven knowledge which is what our customers have come to expect of Mount Shop: top quality product and the expert knowledge which comes with it. It's what we've always supplied, and we'll continue to deliver."

To view the entire Mount Shop product range, head to their website ***www.mountshop.co.nz*** or call your nearest branch on 0508 86 66 86.

THE POWER OF
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NO BUDGET IT
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NEW BCDC CORE
IN-CABIN CHARGER

Power up for less with the BCDC Core, the next evolution in the proven REDARC BCDC platform that has been powering off-grid adventure for over 10 years. With simultaneous solar & DC charging, plus lithium compatibility in a compact package with no loud fans or relays, it's the perfect DC to DC charger for in-cabin & canopy power setups.

Designed, tested & manufactured in Australia the BCDC Core is backed by our leading tech support & REDNetwork installer network.

REDARC.COM.AU/CORE

4X4EXPLORER

European 4WD exploring:
Corsica and Sardinia

Richard Soult's Great Escape Part 2

If you read my last article "the Great Escape", you will recall that I was spending the New Zealand winter in Europe, initially exploring with my son, who lives in Finland. We recovered the 4x4Explorer Adventures Europe truck in the UK and headed down, through France, and then on to the Pyrenees.

I dropped him off at Nice airport, mid-July, and drove to a friends house, just to the west of Marseilles. On this trip, you pass Toulon and Marseilles, both of which are ferry ports with links to Corsica. I didn't really have a plan, not having to be back in New Zealand until the beginning of the guiding season in October, and seeing the ferries gave me an idea. Why not spend a few weeks exploring Corsica and Sardinia... I knew that a couple of weeks wasn't enough time, so I treated it as a recce and saw what I wanted.

Andrea, my partner, wasn't able to join me on this trip because she has a "proper job". Imagine my surprise, when the name of my ferry was the "Mega Andrea". Maybe she was there with me after all...

In France, they call Corsica "l'Ilse de Beauté", the beautiful island. I had been to Corsica several times before, but on a yacht. I was really excited to explore the interior and see if I could find any decent tracks to do. I quickly realised that one week for Corsica was at least three weeks too short.

I left the ferry in the south of the island at Porto-Veccio, after a 13 hour passage from Toulon, and immediately headed up into the mountains. They are young, rugged, green, full of beautiful villages and gorges filled with crystal clear water. Stunning.

The first night camping in the mountains was brilliant. Very friendly people and great to camp at over 1000m and escape the overwhelming heat of the coastal areas. I did have to pinch myself when I was complaining about a glass of Rosé, with ice, at 36°C when it was 3°C and raining in Christchurch.

One place that I had wanted to go to get back to for a long time is the beach of

1: A fleet of yachts and powerboats offshore

2: Local pigs are very friendly. They also know how to beat the mid-day heat.

2
4X4EXPLORER
MO04 VHW

1: Brush and ancient rock bake in the Corsican sun.

2: Plenty of tracks and trails to explore.

3: 4WD overlander's paradise.

4: A quick drop in to civilisation.

5: Richard Soult says two weeks is simply not enough time to explore places like Corsica and Sardinia.

Sallecia in the North of Corsica in the Desert des Agriates. I'd been to the beach, on a yacht, several years before and I remember the skipper saying that you could get there by 4WD. This was confirmed by my friend Aaron Rich, from Xpeditionz, who had discovered a super campsite there.

After 45 minutes of interesting grade 2-3 tracks and super scenery, I arrived at the campsite. Many people underestimate the track and attempt it in normal cars and the track was covered in car parts and oil slicks.

It was crowded, as are all European seaside campsites in summer, but it had a great atmosphere! Lots of fellow Overlanders from different countries and lots of stories were told. I don't know how many times I had to explain that the flags on my truck are from New Zealand and not Australia.

This is really an amazing place to visit. During the day the beach was busy, with lots of day trippers from the nearby town of St. Florent carried there by water taxis and large yachts having ventured out from Calvi.

The evenings were quite different, with the beach almost deserted. A great place to sit and enjoy a cool evening with a book and listen to the waves.

Despite the people being friendly and the scenery stunning, there is a constant undercurrent of separatism in Corsica. It is currently French, although the Corsican

IRONMAN 4x4
RHINO-RACK
MAXXIS
4X4 EXPLORER

4

5

language and independence movement are ever present. The level of resentment about French governance is palpable. A GPS is required everywhere, as nearly every road sign in the mountains was full of bullet holes and spray painted.

I saw an excellent tee shirt in Calvi which featured a bullet ridden "give way " sign and underneath read "welcome to Corsica". I should really have taken a photo, as it pretty well summed up the situation.

With the intense heat and, not having had a haircut for a month, I decided that I would get a haircut whilst in town. When I'm guiding in New Zealand, I normally have a "Number 3" all over. That way, when we're camping, I can never have a "bad hair day".

I arrived at the hairdressers and told the lady what I wanted. She told me that this was going to be a bit drastic, but I've been told that in New Zealand before, so wasn't too worried. She started on the back and then did one side. Wow! Not quite the same as at home.

It's worth mentioning that Calvi is the home of 2emeREP. (Second Battalion of the French Foreign Legion's Parachute Regiment). A "Number3" in France actually means three mm, and after my haircut, I

4X4 EXPLORER
W004 VHW

1

felt that I would have walked through the front gates without a problem.

Having lived in France for nearly 20 years, my French is fluent, however I could never pass as a Parisian (hated in Corsica), so travel was easy and I really enjoyed my interaction with the locals.

One of the things that I do wherever I go is try to get to the highest point accessible by car. The highest that I have been is the Col de Sommelier at 3009m between France and Italy.

In Corsica, it is Haut Asco, or "High Asco". Believe it or not, this is a ski station and it was hard to believe in the sweltering heat that it could ever snow, but it does. Haut Asco is at just over 2000m, overshadowed by the Mount Cinto at 2706m and stunningly beautiful. The road to the ski station takes you through the Gorges de l'Asco, which is beautiful with crystal clear water being enjoyed by the locals and the wildlife.

Wild pigs are everywhere in Corsica and seem to know the exact dates of the hunting season. On more than one occasion, whilst stopped in a shady spot by the side of the road, I was surrounded by pigs, much bigger than me, looking for a free lunch.

One of the annoying things about most campsites in Corsica, is that vehicles are not allowed in the actual campsite and have to be left outside the gate. This is a bit difficult for me because I live out of the truck and have the fridge, invertor and all my cooking gear inside. In most cases, I was able to negotiate or just bluff my case and say that I was sleeping in the truck. I did get busted a couple of times, but faking ignorance and politeness go a long way.

After a couple of weeks, I had barely scratched the surface, but it was time to move on. I booked a ferry ticket to Sardinia and headed south to Bonifacio at the southern tip of Corsica. I knew that Sardinia was close, but was surprised when it came into view on the coast road, to see just how close it was. Barely an hour on the ferry.

One of the best things about overlanding without a fixed program, are the happy coincidences that occur. Over lunch on my drive south, I checked Facebook and saw a post from an old friend from Burgundy. It was pretty clear that they were on a boat somewhere with turquoise water and beautiful beaches. I asked them where they were and was surprised to hear back that they were on a mutual friend's boat in Santa Teresa Gallura in Sardinia. That was my destination on the ferry and a couple of hours later, we were drinking pastis on an airconditioned launch catching up on the past few years.

In the next article in this series, I will take you around Sardinia and travel back to France.

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4X4 EXPLORER!
W004 VHW

1. Rural byway...

2. And a rare drive on tarmac.

3. A bit of a chat with a local.

Since November 2022, Richard's involvement with the 4x4Explorer business has ended. Images accompanying this article were shot before he left the business and do not imply that he has any ongoing business interest in 4x4Explorer.

4x4Explorer Adventures is a completely separate business, 100 percent owned by Richard and in no way related to 4x4Explorer.

Waikaia Bush Road

Paul Richards ticks off a "must do" track

When I was looking to escape the rat race of running IT services in government departments in Wellington I looked briefly at the "Grand Designs" notion of buying and restoring the old Cape Broom Hotel in Fruitlands, Alexandra (built 1873, burnt down in 1910, now a derelict stone walled grain store – Google it).

Fortunately, common sense told me my little sack of gold coins would not cover a fraction of the costs involved so we looked elsewhere, moving to Geraldine instead. We did have a long weekend staying in the Fruitlands Hotel just up the road from Cape Broom Hotel though to check out the area. Both of these look back up the hill to Mitchells Cottage (1876) and further up to the top of the Old Man Range and the Obelisk (1695m). We went for a drive up Symes Road, stopping at Mitchells Cottage before going further up. We got about half way up to the Obelisk before turning back as a storm front swept through the tops, discretion being the better part of valour and we were on our own with no other trucks.

Last year I got the opportunity to go up there with High Country Journeys, John Mulholland leading us up to the Obelisk then along the tops to Waikaia Bush Road, down Whitecoomb Road and out to Waikaia. This trip has been on my bucket list since reading about it in Mark Wilson's 4WD South book which describes Waikaia Bush Road, Whitecoomb Road and Old Man Range tracks as generally rough, boggy, with deep waterholes and says, particularly on Whitecoomb Road, that getting stuck is inevitable. It was therefore with some trepidation and excitement that I saw that this tour with High Country Journeys would be taking us through these tracks – weather permitting.

It was beautifully fine but cold (10 degrees) when we turned into Symes Road and headed up past Mitchells Cottage to climb up to the top of the range. The road was dry, dusty and a little rutted but generally in good condition. At the top we turned right and followed the track north to the Obelisk with great views out over the range and down to Alexandra. It was two degrees here but with several degrees of windchill so we did not linger. Back to the Symes Road intersection, we went straight ahead to follow the track south along the Old Man Range.

The track was dry, rutted in places but not enough to cause problems for our convoy of trucks. What intrigued us was the lack of vegetation. It was a flat barren landscape along the tops with the track in reasonable condition – dry and minimal ruts. By now it was down to zero degrees with several degrees of windchill despite being sunny. Past Hyde Rock (1672m) though, it was very rutted on the run down to the Waikaia Bush Road / Whitecoomb Road intersection. Fortunately, it was still dry with very few mud holes. There were many wheel tracks in this section so it was a question of which ones to follow.

From this intersection it was 'get in the wheel ruts and stay in them' down the hill to AA Hut where we stopped for lunch. The sign at the hut said it was 12km and 3 hours back to Symes Road but it didn't take us that long – that was walking times, I think. The track directly from Waikaia Bush Road to AA Hut comes in here. This is a better track so it could be that you follow Waikaia Bush Road round the triangle rather than get in the ruts down the hill from the top intersection.

John then led us down Whitecoomb Road – well not really a road, more of a rutted track. One section of this is the so-called 39 steps section. Here it is big slabs of rock which you have to carefully negotiate. There is no option to go around as the sides are tussock then peat. Fortunately, it was dry through here with just a few mud patches – none deep though. Once off the rock steps we stayed in the clear path along the top of this tussock covered area with the track still mostly dry and easily passable. It was clay based so would be very slippery when wet. In the distance, down in the valley, we could see where the beech forest at Piano Flat met the cleared farmland. The last section was fairly steep down through the scrub and bush to the council gate at Whitecoomb Road/Canton Road intersection. This gate gets locked from early May to mid-October to stop you going through in winter conditions, as it can get very cold very quickly. Even colder than the 0-2 degrees we experienced in early March!

From here it was a quick run on a good gravel road out to Piano Flat with its toilets and camping ground. By now it was raining so we only just got off the hills in time. It would be a whole different ball park with wet slippery clay-based tracks. We travelled from here out to Waikaia for a quick smoko break then on to our overnight accommodation at Leithen Valley Lodge.

This was a great day's driving. We were so fortunate with the weather and with the track conditions. Another track ticked off my bucket list.

If you pick your weather conditions for the day and it has been relatively fine in the lead up to the day, I would say that this is an easily achievable trip for two or more vehicles. Most of the vehicles on our trip were unmodified but with good all terrain tyres. It is mostly downhill from the Obelisk to Piano Flat so a better way to go through. The scenery is great – big country and big skies. Respect the conditions as they can change very quickly and can get very cold even on a sunny day. A group of people got caught up here a few years ago in a snow storm and had to be rescued, abandoning their trucks to be recovered several weeks later.

Continued page 56☛

1

Show Your Skills...
Stay on the Track!
It's harder than it looks
You will find it challenging.
You will protect rare plants.
You will remain with
4WD TRACK ONLY
SUBJECT TO SUDDEN AND EXTREME WEATHER CHANGES
ALTITUDE AT SUMMIT
136_m
JDP503

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4

1: Coming off the 39-step section, Piano Flat in the valley below.

2: Safely off the hill and at the gate on Whitecoomb Road.

3: Tip toeing down the 39-step section of Whitecoomb Road.

4: The last section down through the bush and scrub before the gate on Whitecoomb Road.

Extreme off-roading in Indonesia

Off-road racing beats the cyclone

Image by Phil Hagan

UNSTOPPABLE

MATHER/VERNER SCORE ROUND 4 WIN

Image by Kaye Hobart via nz4x4trials.co.nz

The pairing of Neville Mather and Richard Verner are shaping up as a title prospect after winning the fourth round of the Lucas Oil NZ 4×4 Trials at Te Puke.

They were followed by Sam Thomsen and Mitchell Caldow, putting them in serious contention for top honours this season.

Storm dodgers: like the opening round of the New Zealand Offroad Racing Championship, the Bay of Plenty round of the trials series managed to dodge Cyclone Gabrielle by a matter of hours.

The BOP 4WD Club hosted the fourth round of the Lucas Oil NZ 4×4 Trials Series with money raised for the Waipuna Hospice, attracting 48 entries.

The event needed some track changes as the weather closed in. With the course surfaces becoming rougher, the "luck of the draw" starting order played a role in deciding the outcome of each section.

Brinn Fogden/Sean Bydeley struggled in the wet conditions and almost rolled in the timed section, then broke their rear diff.

Nathan Fogden and Mike Gibbons won C Class and finished sixth overall.

Former C Class champ John Hawken and Blair Harrison finished second in C Class and 21st overall, ahead of Shayne Towers and Tony Hadland who led at midday but smashed their rear diff early in the afternoon.

In what was another close battle between Mather/Verner and Thomsen/Caldow, the two were only separated by 41 points at the end of the day.

Behind them were Dan Cowper and Luke Donald, third outright.

Aaron Guest/Garry Preston led until midday in the latest Nitro Custom but fell back to fourth.

They are fourth outright leading into the last two rounds.

Ash Tonkin/Aaron Beattie were fifth, enjoying a good string of results that put them in the top 10 outright.

Chris Tomalin/Fleche Crawford gave "The Ninja" its first Top 10 finish since its 2022 debut.

Multiple K Class champs Brent and Michael Ward rounded out the top 10.

Cody Fogden/Karl Burgener in E Class also broke a rear diff on the day but won their class.

Andrew and Janet Graham were the sole entry in K Class, finishing just behind the C and D class vehicles and ahead of Brinn and Cody Fogden.

THE OFF-ROAD STARS COME OUT

BIG ACTION AT MANUKAU

Photos by Sheena Paton except where noted

Despite a rule change that robbed the event of top South Island teams, there was plenty of off-road racing action at Colin Dale Park in February.

Counties Manukau Offroad Club hosted the opening round of the 2023 New Zealand Offroad Racing Championship at its purpose-built stadium track and drew more than 50 entries including multiple champion Carl Ruiterman in his all-new Yamaha YZX Turbo.

Justin Davies and crew/fan club.

The event took place as Cyclone Gabrielle made landfall in Northland, and the weather deteriorated progressively as the day progressed.

Long-time racer Daynom 'Slim' Templeman won class 1 for unlimited race cars ahead of Justin Davies and Paul Eayrs. The class drew eight entries. Bard Harvey crashed into Alan Hilliam in one heat, ending up parked across the bonnet of Hilliam's Porsche-powered car.

Class three for cars up to 1600cc saw the return of another long-time campaigner, former national champion Lindsay Pointon to the sport. The class win went to Connor Nicklin ahead of Mark Goldstone and Shaun Dickins. Nicklin showed the benefit of his aggressive driving and was third, third, second and first in the class 3 heats. Multiple national champion and Taupo 1000 winner Tony McCall entered his new class 3 car but was unable to race, the car's steering failing before the first race.

Holly Russell has moved up from the youth Kiwitruck category and is racing in class five – she was clearly the quickest and won the class ahead of Aaron Hogg-Medlock, with Nick Magness third.

The big class 8 trucks turned on spectacular action, Paul Hackett crashing his US race truck over the track's 'tabletop' jump. With panel damage and a wrecked left front suspension, he was out for the day.

Another to strike trouble was front-runner Leigh Bishop, who caught fire midway through a race.

The class win went to multiple champion Nick Hall, with Nick Leahy second; both trucks built to American ProLite specs. Third was Bruce McKeown.

The sole class 9 (Baja) entry was Maurice Bain's Crumco VW, driven by Arnold Jones.

In class 10, Ed Hiestand won ahead of Alex McIndoe.

The Challenger class for cars with VW 1600 engines was once more owned by young racer Matthew Bishop, who drove his Challenger and also his new U class Honda Talon. Second in Challenger was Emma McKinstry ahead of Steve Hughes.

The 'side by side' or UTV classes were the biggest grids of the event. In the main 'U' class there were 13 cars; the faster 'S' class drew another four.

U class honours went to Cam Paton ahead of Dyson Delahunty and Shane McWatt. Matthew Bishop's Honda was an early retirement in the first heat.

Carl Ruiterman had a dream debut in S

The UTV U class had the biggest entry.

Connor Nicklin, class 3 winner.

Nick Leahy chased by the pack Image by Justin Williams.

class. He won every race for the higher performance modified UTVs. Aaron Rogers was second, Scott Munro third.

In the youth Kiwitruck classes, Zac Rowberry won J class ahead of Lily Williams and Lachlan McWatt; Asher Morgan won M class ahead of Luke Rowberry and Enzo Hackett.

Together with the Stadium Grand Prix, the first national round was filmed for broadcast on TV3. These are currently the only offroad events to profile the sport on free-to-air TV in 2023.

With Whangarei's second round cancelled, the 2023 championship resumes in May with the first southern round in Nelson. Northern championship racing returns to the TECT Park near Tauranga in September.

Carl Ruiterman dominated S class.

WILD FOREST OFF-ROADING

FROM DEEP IN THE INDONESIAN JUNGLE

Photos from Julian Johan.

The Rainforest Challenge may have sparked the whole tropical jungle event phenomena, but it's hardly the only such series.

Indonesian Julian Johan is a long-time fan of the sport, and regularly posts images on his Facebook page of local offroad action.

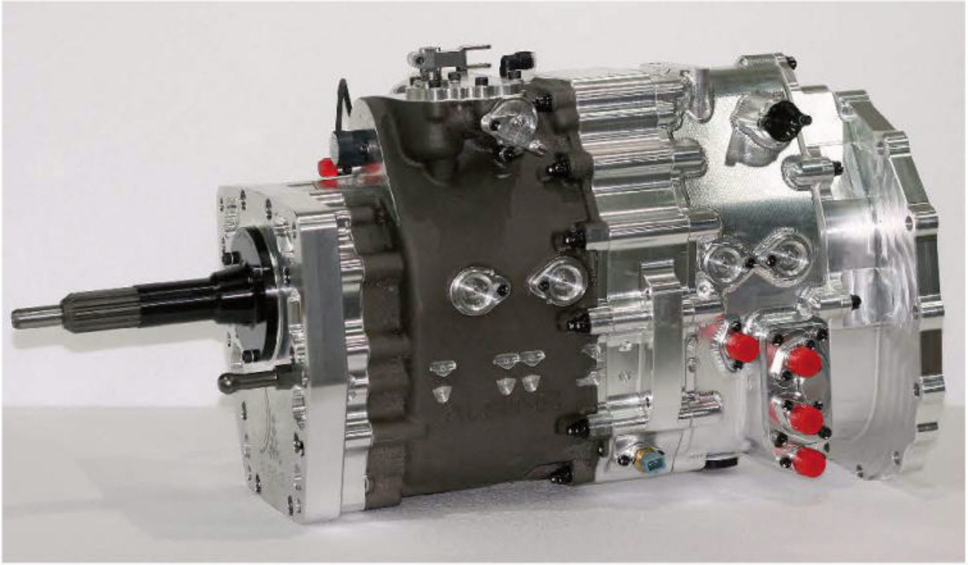
From mild to wild, the Indonesian 4WDers have a massive range of vehicles and a huge passion for their challenging land.

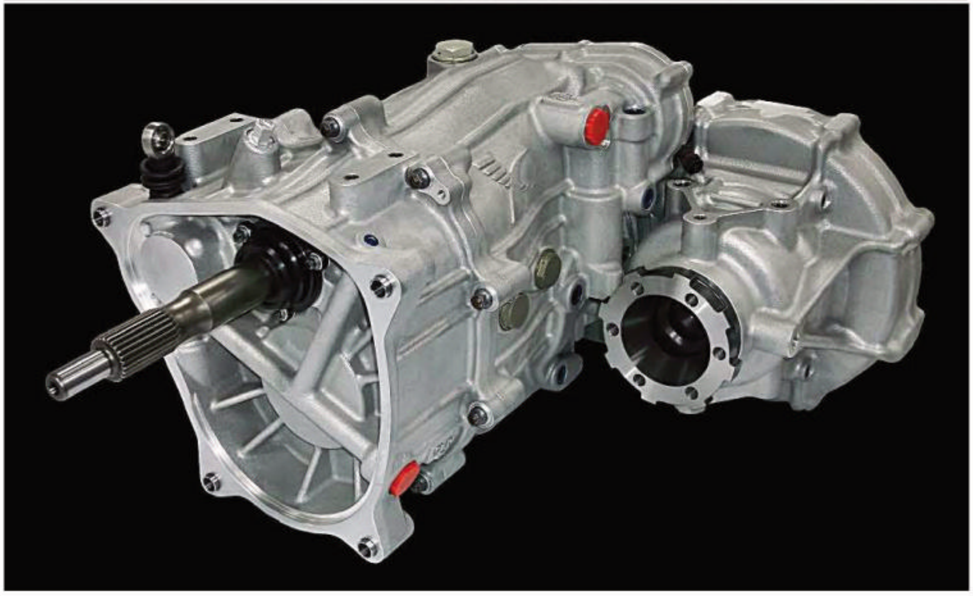
They start with older Suzuki Jimnys, almost standard, and go all the way to full tube-framed RFC-style trucks. American 4WDs are readily available and are modified to cope with the extreme local conditions. Likewise, the Nissan Patrol, Mitsubishi Triton and other Japanese 4WDs have a strong following.

There's even a national organisation, the Indonesian Offroad Federation, helping network Indonesian 4WD enthusiasts, a separate sub-group for remote-controlled offroad cars and a national championship based around RFC-type events. In addition to its main role, the IOF also undertakes humanitarian work for remote communities in jungle areas.

TOUGH TRANSMISSIONS

TOP OPTIONS FOR 4WD AND OFF-ROAD RACING





Competition transmissions place huge demands on mechanical components, none more so than the drivetrain.

While some stick with manual shifters, across the ultimate truck classes of offroad racing and in the wilder extremes of 4WD competition, the auto is king.

Manual shifting is preferred in the race car classes of off-road racing, where transaxle units are preferred, but manual-shift builders like Albins in Australia are now expanding into 4WD units like the company's sequential shift ST6 and STX units. They make model-specific units for the LandCruiser 200 and GU Patrol.

It makes transmissions rated for up to 1100Nm. The STX-P 6-speed sequential is perfect for sand dune racing Nissan Patrols making in excess of 1800hp. This transmission is especially popular with the company's Middle Eastern customers.

German companies such as ZF and Getrag produce five and six-speed manual transmissions for 4WDs. Getrag is an OEM fitment for a number of Dodge trucks.

For most auto applications, racers go for the well-respected Turbo 400 auto. One American company offers nine different motorsport versions of this transmission. Their prices range from an accessible $2,500US all the way to $10,000 for a custom-build auto modified for manual shift and developed for the torture dished out by the Baja 1000.

The Powerglide two-speed auto also still has its fans – simple, bulletproof and a mainstay of the Kiwi drag racing scene. That means there is a well-established network of transmission companies able to build Powerglides for all applications.

At the higher end are companies like Xtrac. The company has been producing 4WD systems and transmissions for the most extreme uses. Events such as the Dakar Rally Raid and Baja 1,000 offroad race push the demands on transmissions to extremes and with the added torque from modern racing internal combustion, hybrid and electric propulsion units, a transmission has to be designed to the highest level possible.

Using experience gained in endurance events such as the Dakar has allowed Xtrac to build multiple gearbox ranges which supply top level manufactures in WRC and numerous other championships around the world.

Xtrac supplied the world's first full EV transmission to complete an FIA Rally event and in doing so secured a podium position. Xtrac is also proud to be the exclusive transmission supplier for the first all-electric FIA World Championship off-road series, the eWRX.

FINKE TIME

AUSSIE'S TOUGHEST DESERT RACE IS BACK FOR 2023

The Tatts Finke Desert Race is an off road, multi terrain two-day race for bikes, off-road race cars and trucks through desert country from Alice Springs to the small Aputula (Finke) community.

Often contested by Kiwi race crews, the race is held each year on the Queen's Birthday long weekend in June.

"The Finke" as it is commonly known, is one of the biggest annual sporting events in the Northern Territory and has the reputation of being one of the most difficult off-road courses in one of the most remote places in the world.

Talented racer Raana Horan has contested the Finke in recent years, and most recently, Wainui driver Richard Crabb has also represented the Kiwi race fraternity.

Watch Raana Horan's video from 2016:
https://www.facebook.com/watch/?v=1100564153365979

Richard Crabb's prologue (qualifying) lap for 2018:
https://www.facebook.com/watch/?v=1964554493557679

The 2023 Finke takes place June 9-12.

Andrew Gee's Jeep Wrangler competes in Class 3, here clears the bump for 60 points.

Club Truck Stalwart Steve Steward turns out of the off chamber turn but must pass inside the yellow peg to stay in the course.

Bruce Tustin finished the day in third place, here he jumps his Jeep on the Speed section.

Old campaigner Dave McGinnity took second on the day in his Jeep Wrangler Class 3.

COUNT YOUR BLESSINGS

CENTRAL ZONE CLUB TRUCK CHALLENGE 2023 ROUND 3 WELLINGTON

By Andrew Gee

In a terrible start to the year, many Kiwis have suffered from extreme weather events. It has been great to see 4WD clubs and individuals out there helping people. Ralph and Georgie Dobson from Cross Country Vehicle Club (CCVC) headed to Napier and volunteered their labour to whoever needed it, while Brent Ward loaned his digger to the people of Tinui for the flood clean-up with help from Scott Donald who delivered the digger to the town. CCVC had an emergency callout of club vehicles to the South Coast when it looked like the Interislander might run ashore. They were stood down after two hours of waiting when the Kaitaki got running again. The Auckland Anniversary weekend storm cancelled round two of the Club Truck Challenge (CTC) in Wairarapa when access to the site was under water.

When Wellington Jeep Club took on the running of this event they used Capital City styles: first, form a subcommittee (Dave, Bruce and Andrew), second, ask for an RFT, and three, engage overpriced contractors. They had a good man in charge because the event ran perfectly. Thanks to Malcolm and Sue for access to a new part of their farm that had heaps of potential with odd shaped bumps and lumps, rock strewn slopes and huge open space for a massive speed section. A number of techniques were used in making the hazards to test the drivers, hillclimbs with no run up, off-camber corners that sent vehicles out of the course and short sharp humps that required entry at an angle to avoid clearance issues. Hazards eight and nine used the old off-camber corner trick to fire people off the course and then require recovery before they rolled over. Steve Stewart's Nissan was a tough pull-out of the hazard, needing a train of two trucks to get enough traction to move him.

My own recovery from the last hill was close to a roll over but skill and a lot of luck kept the Jeep rubber side down to let us finish the day with a speed section.

Hayden Foott joined the comp in his very tidy built-up Nissan Patrol cut down to a ute. He was getting into the swing of 4WD trials but was let down by a few mechanic issues. Hopefully he will attend to them and be a force to be reckoned with next time out. Ross Gregory bought out his Jeep and had a few laughs driving over the hills. It was good to see him out in the traps but maybe bring a little more petrol with you next time?

All in all a good event at a new location.

RESULTS

Class 1 Ross Gregory, Jeep CJ
Class 2 Brendan Watchorn, Pajero
Class 3 Dave McGinnity, Jeep TJ
Class 4 Brent Ward, Nissan Patrol

DIRT NATION **WITH BRYAN CHANG**

Odd-looking championship under way

The 2023 championship is under way, though the season is looking odd up north.

With the opening round at Manukau done and dusted just before the cyclone roared through, the second northern round at Whangarei is cancelled.

That means unless an event like Woodhill steps up, the next championship racing will be at the TECT Park near Tauranga in September. February to September? That would be a long quiet season. Big talk floated around at Manukau that the Woodhill would indeed step up.

Down south, the regional rounds are intact, meaning we get three championship events before Labour Weekend national finals.

It's a double edged sword – the northern racers get less seat time at championship level, but also do less damage. Southerners get more seat time, and the final round is at Kurow this year. So there are no ferry crossings to book for us.

A few trends have emerged in the recent race seasons. Leaving aside the pandemic's effect (and now the storms and cyclones up north during this 'summer'), classes are evolving and the most exciting racing is now across a handful of classes.

The big growth in the sport has been in the 'side by side' classes, where another race weekend standout was Carl Ruiterman, who brought out a new S Class Yamaha YZX UTV and won every race for the class. He took top points for the day and shapes up as a class and overall contender for the championship.

In fact, the UTV classes were the biggest fields of the day, the 'stock' class shaping up with a grid of 14 cars including class winner Cam Paton and the return of Dyson Delahunty in his Polaris.

In the race cars, teen Holly Russell dominated class 5 in her US-built stadium single seater. Russell and long-time youth category rival Matthew Bishop are fast, tidy racers and both show huge potential. Bishop ran fast all day in the Challenger class for cars with 1.6-litre VW engines, winning all his races to equal Carl Ruiterman's S class achievement.

There were no class 7s racing at round one. None. So, is our entry class now Challenger? Still short on suspension, and a tough drive in rough races like Woodhill, but an easier challenge than the smaller-engined class 7s. Maybe this is the year the 7s quietly get parked?

After all, a 7 can be upgraded to a Challenger with a simple engine change. Might be worth looking at. After all, we killed off the production and winch challenge truck classes.

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GEOFFZONE BY GEOFF ANDERS

Dynamics

Vehicle dynamics have intrigued me since my first vehicle – a 'pedal trike'. You know the one – pedals on the front wheel. Soon learned that 'trike' meant three wheels and turning too hard made it fall over. I also discovered that leaning back (rearward weight transfer) allowed wheelspin at the front and a short black burnout on the path, which puzzled Mum for a while...

Conversely, leaning hard over that front wheel often increased traction on damp grass, hopefully reducing criminal skid marks. A chain trike was next with one-wheel-rear-drive and reversed traction dynamics. Lift the wrong back wheel, trike would stop. Lean the other way could ride on two wheels indefinitely. They also had a front brake! New skills!

It's surprising how much that was learned on those basic rides transferred to bicycle riding skills and later to motorbikes, cars, motorsport and 4WDs. Valuable automatic reactions to changes of traction and other hazards become embedded in one's subconscious. Falling from trikes and bikes usually instils an acute awareness of road surface condition, camber etc. - also a must for 4WDing.

So it's always fascinating seeing changes to vehicle dynamics and controls. The first cars were trikes with no suspension. An advantage of three wheels is that, to a point, they should never lift a wheel, unlike four unsprung wheels which must always lift one on uneven ground. Wasn't long before cart springing was copied. Speed was limited as they bounced a lot and sometimes control was lost. Look for old film clips of Ford Ts on rough roads!

Crude shock absorbers appeared – two short arms linked with an adjustable friction disc between them bringing instant improvement to comfort, control and suspension longevity.

Citroen broke new ground with their tiny 2CV car. Designed by 1939 but not revealed until post-war and quickly produced, it used suspension that mechanically linked front to rear at each side for astounding ride and traction. Designed for rural France they 'must be able to drive across a ploughed field and break no eggs'! In the 1950s they again surprised the world with the futuristic, beautiful and very innovative ID19 sedan that used a hydro-pneumatic version of the 2CV suspension. It allowed a very smooth ride, kept all wheels on the road and had driver-adjustable ride height.

In 1962 the British Morris/Austin '1100' hit the road with Hydrolastic suspension which was a simpler, cheaper and more reliable version of the Citroen concept but without ride-height adjustment (though it did allow limited change at workshop). Also used in the Mini and Maxi range, it gave great ride and handling and also, for a road car, excellent off-road traction as they never lifted wheels.

All these systems linked front and rear wheels of a side, so if one rose the other was pushed down, with a spring and control elements included to soften the effect and improve ride. Some more modern systems can move air or fluids side to side also for roll control. Many other versions have been explored but few continued. Air suspension was first tried in 1901 then sporadically since. It has been used in a large number of makes and models.

I've often wondered why those concepts took so long to reach 4WD vehicles. For a long time 4WDs were regarded as just military/agricultural/industrial/exploration tools where comfort and aesthetics were not considered. Land Rover's Rangies (1970) sorted that with long travel coil suspension incorporating automatic ride-height control and a rear pivot that improved off-road articulation. Later versions introduced and refined air suspension and variable ride height.

As Citroen, BMC, Land Rover and other innovators discovered, such systems add cost and complexity and eventually begin to fail due to leaks, corrosion, pump or control failures, whereas 'conventional' suspension systems fail due to spring sag or breakage, shock absorber, bush and joint wear. Usually the more complex the more expensive the fix. 'Tis interesting to note that leaf springs and drum brakes remain current on some new 4WDs!

An innovative Aussie modded his 4WD to improve articulation by adding a pair of longitudinal tubes attached to the axle casings, connecting to a gearbox behind the transmission. These had universals at each end like a driveshaft but they only twisted with the casings. The extra housing had a pair of meshed gears that moved a few degrees following the casing movements. Looking forward - if the left front wheel went up, twisting its casing clockwise it forced the rear casing anticlockwise pushing the left rear down for maximum traction while also controlling roll. At the other side it forced the right front down and rear wheel up. Driving a rough track the body should remain level.

It gave good roll control and articulation but had no built-in shock absorption so I would expect it may give a harsh ride and be brutal to its mechanical components. As some 4WDs have greater roll stiffness at front or rear, I wondered if this could have been mimicked by changing the ratio in the gearbox? It was featured in an Aussie 4WD mag. Have not heard of it since, but was an interesting approach.

Search YouTube for 'Citroen 2CV suspension', there's an excellent video.

Search for Korres P4 (interesting 4WD). Hydrolastic (Wikipedia). Citroen Hydro-pneumatic. Air suspensions (overview).

Power to the Innovators!

VAHRYOUS THOUGHTS BY PETER VAHRY

Storm recovery - get active

When I wrote about the wet summer in last month's column, things definitely didn't improve for the North Island through February. It's been very sad seeing lives and livelihoods destroyed by water and mud.

How the damage to back country access by road will affect our recreational four wheeling is difficult to determine, although there may be some roads that just won't be fully reinstated or maintained.

Within many local bodies there is already a distinct lack of enthusiasm to be concerned about the desires of four wheelers for access to public lands including unformed and old legal roads.

It is going to need a much more unified 4WD community than has been in evidence in recent times. Joining a 4WD club is a valuable thing to do, as most are a part of representative organisations such as the New Zealand Four Wheel Drive Association Inc.

If you want to stick with your virtual group, that's fine, but such groups don't engage with local Councils and government departments to fight for us. That's something that the clubs and associations do, often face to face. Be adventurous and also join a 'regular' 4WD club. That will allow you to be 'counted' in statistics, to be kept informed about four wheeling issues and opportunities.

I'm going to quote a US 4WD advocate, Del Albright... "If we do not unite, speak up, stay engaged, stay tuned into what is happening with our trails, and FIGHT BACK, we will end up parking our rigs in the garage to look at a few times a year. We cannot just be virtual, and we cannot let daily distractions numb us into apathy."

We need to be seen looking after what venues we are able to use. Volunteering time on a shovel or clearing vegetation helps to demonstrate that we care about keeping tracks open and sustainable. That's probably going to be a factor in access to 4WD tracks in the North Island with many having much less traffic and the rain encouraging vegetation growth that encroaches across the track. Shovel brigades may be a practical answer to smaller slips, rather than organising machinery and all the documentation that can be required to use machines on public land.

Another option is simply to donate to an organisation so that they have the resources to send representatives to meetings with politicians and bureaucrats. If four wheeling is not at the table when decisions are made about access, then those same decisions will be simply made in our absence and not necessarily in our favour. Four wheelers are notoriously tight when it comes to supporting those who are willing to speak up for them, although that new set of tyres is a 'must have'... even if there may be few places to use them!

We don't have much of a history in New Zealand of companies contributing towards the maintenance of four wheeling opportunities and access, but maybe it's time it's encouraged. Certainly, some companies offer purchase discounts, however that does nothing to ensure that there will be places to actually go four wheeling legally. Maybe we all need to ask the question when buying stuff for our vehicles, "does your company help fund any group lobbying for 4WD use of public lands"?

Imagine the effect on a business profile if they put their hand up and said, we are going to help fund the maintenance of 'X' track! I know that I'd certainly consider buying their products. A number of US 4x4 accessory suppliers run annual 'grant' programs that 4WD groups can apply for to fund projects. Some grant funds are quite small, but when a club itself has limited funds for a project, every little bit helps.

I'm quoting Del again here, and you can see that the message and issues are the same in the USA...

"Saving trails, keeping motorised sports alive and well, and ensuring the future of off-pavement recreation of any kind depends on money! Groups/causes who are unified in their message get the money – and get to accomplish their goals. Commissions, counties, deep pockets, etc. love to fund a cause that shows a unified front. Dis-unity or infighting results in no funding and no future. Let's all work together to ensure the money migrates to our unified message for your trail - for any trail."

Without adequate funding for our recreation's organisations, to enable the type of strong lobbying and creation of supportive documents that is required to substantiate our recreational values and stature among the many other demands on our public lands, we will continue to be sidelined. Perhaps the message for 2023 should be Join, Volunteer, Donate and Involve the commercial world?

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TORQUETALK **BY ASHLEY LUCAS**

Then push GO!

Workshop time again at Geoff's workshop, this time on my 2003 LM Range Rover V8 which is fitted with the BMW sourced M62 engine. This is an all-alloy V8 that makes a very tidy 210kW @ 5,400rpm and 440Nm @ 3,600. The Range Rover isn't light at 2.5 tonnes but when new the engine could do the standing start to 100kph in around 8.89 seconds.

My 2003 model is fitted with the SAS-S-Drive throttle controller which provides quicker responses from the accelerator pedal to the engine and I have found this to aid fuel economy if driven correctly to the standing 100kph time down to 8.0 seconds in race mode, which I though wasn't too bad for a vehicle (and engine) that has over 200,000kms on the dial.

Anyway I digress; the Range Rover has been pretty reliable over the 9.5 years of ownership with a couple of hiccups sorted under warranty in the early days. But more recently I had a couple of warning lights flash up on the dash, including the battery light, although at times it seemed to be faint. I did the usual stop, turn off and start again plus the disconnect battery for hard reset to no avail. It seemed as though the alternator was failing so I headed back home hoping there would be enough power left in the battery to get me home. There was but once home the battery was fuming and venting and a check with an ammeter showed the alternator was actually overcharging at around 19V.

A replacement alternator was sourced and the battery put on the charger. Initial thoughts was that the battery, although not that old would be 'fried' so I planned for a new battery.

The alternator in the M62 engine is a big heavy lump that is water cooled within the engine and it's no easy 30-minute job to replace and is best done on a hoist as access is require from the top as well as underneath as the alternator is buried deep in that huge engine bay. The engine underbody tray had to be removed and then up top, the battery was disconnected, the air intake and MAF removed. The fan is also removed along with the shroud after the trans cooler was moved slightly out of the way. The one easy part was that there is a tap fitted to the left side of the radiator to allow it to be drained. The top radiator hose was also removed for improved access. The tensioner was released and the drive belt slackened off.

The alternator is held in place by 6 bolts but before removing the electrical lead was unbolted. With the right tools, and Geoffrey has most of them to hand, the bolts were easily undone and the heavy lump lifted out. Not much to see with these alternators.

While the alternator is sealed with an 'O' ring, the flange surfaces were still cleaned up and we found this was better done from underneath than reaching over into the engine bay. Once cleaned a small amount of rubber grease was applied to help the 'O'-ring seal properly. It was then the reversal to put everything back in place, slowly as we spent time ensuring items were properly in their correct place. We also rummaged around seeking out the correct type screws etc for missing fixings that had obviously been missed off when previous mechanics had been working on it.

With everything reassembled, the battery connected, it was time to refill the radiator, a slow process, even with the bleed screw on the header tank undone and the engine running to warm up and open the thermostat.

The battery warning light had now extinguished but there were still a couple of others that were showing and a warning that the air suspension was inactive. It was out with the diagnostic computer, plug it in and read and clear the couple of fault codes. But no matter what we did, the faults wouldn't clear and the warnings remained. By now it was time to knock off and tomorrow would be another day and the vehicle was left inside for the night.

Next day Geoff moved the Rangey outside and once moved and the suspension settled after being on the hoist the warning lights disappeared and Geoffrey was able to clear the faults. Success and the other bonus was that the existing battery was holding its charge and able to be stay in use. Anyone want a new battery?

Still a couple of small jobs to attend to like the break in the wiring for the low coolant warning and then it's off to get a new WoF.

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